

European Congress of

# APPLIED CHEMISTRY (ECAC24)

20-21 May, 2024 | Prague, Czech Republic



ECAC24

<https://ecac24.materialsummit.com/>

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# SCIENTIFIC AGENDA

# DAY-1

20 MAY, 2024

# SCIENTIFIC PROGRAM

Day 1 - 20 May, 2024 - Monday

Time	Speaker	Affiliation	Title
08:30-09:30	Registration		
Keynote Session			
09:30-10:15	<b>Toshiaki Murai</b>	Department of Chemistry and Biomolecular Science, Faculty of Engineering Gifu University, Japan	5-N-Arylaminothiazoles as New Fluorescent Small Molecules
Oral Session			
10:15-10:40	<b>Daniela Berger</b>	Department of Inorganic Chemistry, Physical-Chemistry & Electrochemistry National University of Science and Technology Politehnica Bucharest	Drug Delivery Systems Based on Mesoporous Silica Functionalized with Boronic Acid Derivatives
10:40-11:05	<b>Al Zahraa Fatima El Cheikh</b>	Department of Chemical and Environmental Science University of Limerick Limerick, Ireland	Cu/Zn/Si hybrid Aerogels and Xerogels as a potential catalysts
Coffee Break			
11:30-11:55	<b>Ola HAIDAR</b>	Laboratoire Réactions et Génie des Procédés, UMR 7274 CNRS, Université de Lorraine	Defect-Rich Metal Organic Framework for Efficient Removal of Micropollutants from Water
11:55-12:20	<b>Javier Navas Pineda</b>	Desireé M. de los Santos Departamento de Química Física Facultad de Ciencias, Universidad de Cádiz	Analysis of stability and thermal properties of nickel oxide/polydimethylsiloxane nanofluids under operation temperature in CSP
Lunch			



## Keynote Session

13:30-14:00	<b>Oleksandr Tkach</b>	Dept. of Materials and Ceramic Engineering University of Aveiro Aveiro, Portugal	Engineering of High-performance n-type Oxide Thermoelectrics
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## Oral Session

14:00-14:25	<b>Iván Carrillo Berdugo</b>	Desireé M. de los Santos Departamento de Química Física Facultad de Ciencias, Universidad de Cádiz	Interface chemistry effects on the thermal properties of nanofluids for concentrating solar power
14:25-14:50	<b>Ramesh Chandra</b>	Institute Instrumentation Centre (IIC), Indian Institute of Technology (IIT) Roorkee, India	Supercapacitors: An Energy Storage Device Based on Nanostructured Thin Film Electrodes
14:50-15:15	<b>Beatriz Fernandes</b>	INIAV, Instituto Nacional de Investigação Agrária e Veterinária, Avenida da República, Quinta do Marquês	Microencapsulated sweet basil oleoresins as the key to unique and stable flavoring formulations

## Coffee Break

## Poster Session 15:15-16:00

<b>Carmo Serrano</b>	INIAV, Instituto Nacional de Investigação Agrária e Veterinária, Avenida da República, Quinta do Marquês	Temperature release tests of encapsulated aroma and flavor basil oleoresins by HS-SPME-GC-MS
<b>Rodrigo Alcántara</b>	Departamento de Química Física Facultad de Ciencias, Universidad de Cádiz, Puerto Real, Spain	Characterization of copper or nickel/polydimethylsiloxane nanofluids as heat transfer fluids
<b>Amravati S. Singh</b>	Instituto de Tecnología Química (UPV-CSIC) Universidad Politécnica de València, Spain	Cyclododecene isomeric separation by (supported) rhodium(I)-catalysed selective dehydrogenative borylation reaction
<b>Cherifa Ben M\leh</b>	Laboratory of Material Chemistry Faculty of Sciences of Bizerte, University of Carthage, Tunisia	Synthesis, molecular structure, vibrational and theoretical studies of a new non-centrosymmetric organic sulphate with promising NLO properties

<b>Kader POTURCU</b>	Faculty of Engineering and Natural Sciences, Department of Chemistry, TURKIYE	Preparation and characterization of solid dispersion of pyrazine derivative Covid-19 drug
<b>Shah Khalid</b>	Khushal Khan University Karak, Pakistan	A New Approach to Study Combination Mixture Organic Solvent Ethylene Carbonate with Lithium-Ion for Alkali-Ion Battery: A Density functional Theory study

### Oral Session

16:00-16:30	<b>Subodh Kumar (Invited Talk)</b>	Developing polymer matrix composite with enhanced mechanical properties and self healing	Dept. of Materials Engineering Indian Institute of Science Bangalore, India
16:30-16:55	<b>Elizabeth C. Pastrana Alta</b>	Center for the Development of Advanced Materials and Nanotechnology, Lima, Peru	Synthesis and characterization of iron (III) oxide/bismuth molybdate thin film heterostructure for the photo electrocatalytic degradation of antibiotic oxytetracycline
16:55-17:20	<b>Juan Jesús Gallardo Bernal</b>	Physical Chemistry Department University of Cádiz, Spain	Pt-PDMS and Ag-PDMS nanofluids, a future alternative as heat transfer fluids in concentration solar plants
17:20-17:45	<b>Tanmoy Maiti</b>	Plasmonics and Perovskites Laboratory, Department of Materials Science and Engineering, Indian Institute of Technology Kanpur, Uttar Pradesh, India	Oxide Nanocomposites: A Viable Route for Designing High Performance Thermoelectric Power Generator
17:45-18:10	<b>Filipe Amaral</b>	Polytechnic Institute of Coimbra, Coimbra Health School and i3N, Portugal	Non-Ferroelectric ceramic oxides for energy storage

### End of Day 1 Program

# SCIENTIFIC AGENDA

# DAY-2

21 MAY, 2024



## SCIENTIFIC PROGRAM

Day 2 - 21 May, 2024 - Tuesday

Time	Speaker	Affiliation	Title
Keynote Session			
09:30-10:15	<b>Manuel Almeida Valente</b>	Enhanced magnetoelectric and energy storage performance of some lead-free materials	University of Aveiro, Portugal
Oral Session			
10:15-10:40	<b>Cristian Matei</b>	CAMPUS Research Institute National University of Science and Technologies Politehnica Bucharest	Composite Materials Based on Mesoporous Silica Modified with Inorganic Nanoparticles with Enhanced Antibacterial Properties
10:40-11:05	<b>Alessia Giordana</b>	Dipartimento di Chimica Università degli Studi di Torino Torino, Italy	Hydroxyapatite composites for food packaging
Coffee Break			
11:30-11:55	<b>Sílvia Gavinho</b>	Physics Department University of Aveiro Aveiro, Portugal	Multifunctional biomaterials for dental implant coatings
11:55-12:20	<b>Wen Jin Meng</b>	Mechanical & Industrial Engineering Department Louisiana State University, USA	Vapor Phase Synthesis and Characterization of AlScN Thin Films and Nanowires
Lunch			
Keynote Session			
13:30-14:00	<b>Yarub Al-Douri (Online)</b>	Fellow of the European Academy of Sciences	Magnetic field effect on nano-molecule of water

## Oral Session

14:00-14:25	<b>Marina Schwan</b>	Institute of Materials Research German Aerospace Center Cologne, Germany Country	How the microstructure of cathode material influences the performance of lithium-sulfur batteries
14:25-14:50	<b>Nitesh Choudhary</b>	Institute Instrumentation Centre (IIC), Indian Institute of Technology (IIT) Roorkee, India	Use of Nanocellulose for Sustainable Energy Storage of Supercapacitor: A Green Approach
14:50:15:15	<b>Yuksel AKINAY</b>	Van Yuzuncu Yil University, Van, TURKIYE	A new type of 2D Nitride MXene Materials and Their Characterization

## Cofee Break

## Poster Session 15:15-16:00

<b>Manuel Chavez Ruiz</b>	Instituto Nacional de Salud, Lima, Peru	Development of a combined system to remove arsenic from high concentration of arsenic in drinking water
<b>Francesco Paolo La Mantia</b>	Department of Engineering, RU INSTM, University of Palermo, Viale delle Scienze, Palermo, Italy	Evaluation of the Effect of a Biodegradable Contaminant on the Recycling of an LDPE Sample
<b>Chang-Seop Lee</b>	Department of Chemistry Keimyung University Daegu 42601, Korea	Three-dimensional network of nitrogen-doped carbon matrix-encapsulated Si nanoparticles/carbon nanofibers hybrids for lithium-ion battery anodes with excellent capability
<b>Fabián Ríos</b>	Universidad Industrial de Santander, Bucarmaanga, Colombia	Alumina nancontainers as nanocarriers for self-healing anticorrosion agents
<b>Leidy Pico</b>	Programa de Ingeniería Biomédica Universidad Autónoma de Bucaramanga – Unab Bucaramanga, Colombia	Rational Design of a Fusion Protein for Cyclodextrin Production from Alternative Substrates

**Zehra Funda Akbulut**

University of Van Yuzuncu Yil, Faculty of Engineering, Van, Turkey

The Role and Importance of Colored Concrete in Today's Construction Industry

**Soner ÇETİN**

University of Van Yuzuncu Yil, Faculty of Engineering, Van, Turkey

Pozzolanic Materials in Concrete: Unveiling Sustainable Benefits

### Keynote Session

16:00-16:30

**Roger M. Leblanc (Online)**

Department of chemistry, University of Miami, Coral Gables, FL 33146, USA

Carbon Dots as Novel Drug Delivery Systems in Modern Medical Healthcare

### Oral Session

16:30-16:55

**Pedro Cortes**

Youngstown State University  
Youngstown, OH

Structure-Processing-Property Performance Relationship of 3D-Printed Materials

16:55-17:20

**Atilio Naccarato (online Invited)**

Department of Chemistry and Chemical Technologies - University of Calabria. 87036 Rende, Italy

Development of Analytical Methods for Complex Matrices Using Commercially Available SPME Polymeric Coatings

17:20-17:45

**Andrey Belousov (online)**

Laboratory of Applied Nanotechnology of Belousov, Kharkiv National Medical University Kharkiv, Ukraine

Clinical Case of Magnetite Nanoparticles (Micromage-B) Application in Multiple Sclerosis

17:45-18:10

**Kader POTURCU**

Faculty of Engineering and Natural Sciences, Department of Chemistry, TURKIYE

Formation and characterization of spray-dried drug microparticles

18:10-18:30

**Ali AKBARI (Online)**

Solid Tumor Research Center, Cellular and Molecular Medicine Research Institute, Urmia University of Medical Sciences, Urmia, Iran

POSS Nanoparticles and Their Biomedical Applications

### End of Day 2 & Conference



# EXPLORING PRAGUE

Prague, the capital of the Czech Republic, is one of the most attractive and most visited cities in Europe. The city offers its visitors a breathtaking historical atmosphere, presenting architectural masterpieces ranging from the Roman era basilicas to the art nouveau, functionalist and cubist houses of the 20<sup>th</sup> century.

The historic center of Prague, the Old Town (Staré Město) is where you'll find the splendid Old Town Square (Staroměstské náměstí), one of the best places to begin exploring the city. Here, you'll find the **Tyn Church** and the **Clementinum**, along with numerous other fine old churches, as well as splendid old architecture dating back as far as the 11<sup>th</sup> century, while the **Jewish Quarter, Josefov**, is just a short walk north.

We invite you to visit, among other places, the unique large complex of Prague Castle overlooking the city from one of its hills, to walk over the Charles Bridge built in the 14<sup>th</sup> century, and to wander the narrow romantic streets of the Lesser Town and Old Town. Prague will also unveil itself to you as a busy, modern Central European center of culture and business with numerous restaurants, bars, music clubs, galleries and concert halls, and, of course, friendly people.

