

RICCCE 23

**23rd Romanian International
Conference on Chemistry
and Chemical Engineering**

**Constanta - Mamaia
ROMANIA**

September 4-7

2024

SHORT PROGRAM



Wednesday – 4th September 2024

Wednesday, 4 September 2024	Time		
	14.00 - 17.00	Registration, collecting conference materials	
	17:00 – 17:30	Opening ceremony (Viena Room)	
	<p style="text-align: center;">PLENARY SESSION - 1 <i>Chaired by: Cristina Orbeci and Cristian Pîrvu</i></p>		
	17:30 – 18:10	<p style="text-align: center;">Horia IOVU (<i>National University of Science and Technology Politehnica Bucharest, ROMANIA</i>) <i>Trends in synthesis and processing of advanced biocomposites</i></p>	
	18:10 – 18:50	<p style="text-align: center;">Gabriele MELONI (<i>University of Texas at Dallas, USA</i>) <i>Metal-Thiolate Clusters Assembly, Reactivity, and Selectivity Bias in Human Metallothioneins</i></p>	
	18:50 – 19:30	<p style="text-align: center;">Jarosław MYŚLIWIEC (<i>Wrocław University of Science and Technology, POLAND</i>) <i>Multiphase organic molecular systems for light amplification</i></p>	
	20:00	Welcome cocktail	

Thursday – 5th September 2024

Time	Viena Room	Poster Sessions – Sections 1, 2 and 4 (Madrid Room)
<p align="center">PLENARY SESSION - 2 <i>Chaired by: Cristina Todașcă and Cătălin Zaharia</i></p>		
09:00 – 09:40	<p>Abdelhamid ERRACHID EL SALHI (<i>Institut des Sciences Analitiques, Villeurbanne, FRANCE</i>) <i>Point-of-Care System Based on Silicon Technology: Good Tools for Electrochemical Analysis of Complex Samples</i></p>	
09:40 – 10:20	<p>Aura TÂNTARU (<i>Aix-Marseille Université, FRANCE</i>) <i>Combined Analytical Approches for the Structural Characterization of Molecular Systems</i></p>	
10:20 – 11:00	<p>Mihaela STEFAN (<i>The University of Texas at Dallas, U.S.A.</i>) <i>Amphiphilic Polycaprolactone Diblock Copolymers for Drug Delivery of Anticancer Drugs</i></p>	
11:00 – 11:30	<p align="center"><i>Coffee Break</i></p>	
<p align="center">PLENARY SESSION - 3 <i>Chaired by: Ileana Rău and Daniela Istrati</i></p>		
11:30 – 12:10	<p>Olivier SIRI (<i>Centre Interdisciplinaire de Nanoscience de Marseille, FRANCE</i>) <i>A journey in the world of colors</i></p>	
12:10 – 12:50	<p>Cristian PICIOREANU (<i>King Abdullah University of Science and Technology, SAUDI ARABIA</i>) <i>Challenges in multiphysics computing of membrane processes</i></p>	
13:00 – 14:30	<p align="center"><i>Lunch Break</i></p>	

Thursday – 5th September 2024

ORAL PRESENTATIONS

Thursday, 5 September 2024	Time	Vienna Room	Poster Sessions – Sections 1, 2 and 4 (Madrid Room)	
	14:30 – 17:00	<p align="center">Section 2.1 Bioengineering & Biomedical Technologies</p> <p align="center"><i>Chaired by:</i></p> <p align="center">Jose Javier Serrano Olmedo and Iuliana Bîru</p>		
	14:30 - 14:50	<p align="center">Keynote S2-KN-ID239 Mariana Ionita</p> <p align="center"><i>Emerging treatment strategies for multiple myeloma (MM) and myeloma bone damage reversed</i></p>		
	14:50 – 15:00	<p align="center">S2-O-ID098 Carmen-Valentina Nicolae</p> <p align="center"><i>Enhancing cellular interactions through bioactivation and local nanomechanical reinforcement in nanodiamond-loaded 3D printed scaffolds</i></p>		
	15:00 – 15:10	<p align="center">S2-O-ID121 Andra Mihaela Onas</p> <p align="center"><i>Design and synthesis of peptoid molecules with antibiotic complexation properties for biotechnological applications</i></p>		
	15:10 – 15:20	<p align="center">S2-O-ID-126 Georgian Alin Toader</p> <p align="center"><i>Oligo-DNA extraction from complex media using nitrocellulose membranes modified with carbon nanotubes and PEG-aminated graphene</i></p>		
	15:20 – 15:30	<p align="center">S2-O-ID-071 Madalina-Cristina Nicolae</p> <p align="center"><i>Modified pectin and halloysite based biomaterial ink with potential applications in drug delivery</i></p>		
	15:30 – 15:40	<p align="center">S2-O-ID078 Adriana Zainea</p> <p align="center"><i>Epithelial to mesenchymal transition in a prostate on a chip study</i></p>		
	15:40 – 15:50	<p align="center">S2-O-ID-077 Cosmin-Gabriel Pauliuc</p> <p align="center"><i>Exploiting the versatility of chitosan-based biomaterials for the development of novel platforms as drug delivery vehicles</i></p>		
	15:50 – 16:00	<p align="center">S2-O-ID079 Ana-Roxana Stefan</p> <p align="center"><i>Natural polymers-based hydrogels with possible photothermal properties for treating bacterial infections</i></p>		

23rd Romanian International Conference on Chemistry and Chemical Engineering

Thursday, 5 September 2024	16:00 – 16:10	S2-O-ID-082 Adina-Nicoleta Trandas <i>Nanocomposite chitosan-based hydrogels with reduced graphene oxide for potential application in chemo-photothermal therapy</i>	Poster Sessions – Sections 1, 2 and 4 (Madrid Room)
	16:10 – 16:20	S2-O-ID064 George-Mihail Vlasceanu <i>Visible light-driven hydrogels for tissue engineering</i>	
	16:20 – 16:30	S2-O-ID-068 Cristina Stavarache <i>3D printed k-carrageenan/alginate/carboxymethyl cellulose scaffolds for potential biomedical application</i>	
	16:30 – 16:40	S2-O-ID-048 Andrada Serafim <i>Double networks and double cross-linked networks based on mucin and its methacryloyl derivative</i>	
	16:40 – 16:50	S2-O-ID191 Calin-Constantin Moise <i>Single CuO nanowire preparation for chemical sensing</i>	
	16:50 – 17:00	S2-O-ID178 Roxana Cristina Popescu <i>Nanotechnology in radiation therapy: How to find solutions for a targeted and efficient treatment of cancer?</i>	
	17:00– 17:30	Coffee Break	

Time	Viena Room
	Bucharest Room Workshop - Future trends in Chemical Engineering & Biotechnology Education <i>Moderated by:</i> Horia Iovu

The Workshop focuses on exploring the emerging trends, innovative practices, and future directions in chemical engineering and biotechnology education. As industries evolve with technological advancements and societal needs, educational paradigms must adapt to prepare the next generation of engineers and biotechnologists. The audience will gain insights into how curriculum, teaching methodologies, and learning experiences are changing to meet these challenges.

Speakers:

Isabel Carrillo - UPM - Chemical Engineering Education at UPM

Javier Jose Serrano Olmedo - UPM - Bioengineering Education Programs at UPM

Cristina Orbeci - POLITEHNICA BUCHAREST- Faculty of Chemical Engineering and Biotechnology - Towards new programs

Elena Iuliana Biru- POLITEHNICA BUCHAREST - Opportunities of new programs under Eelisa network

Horia Iovu- POLITEHNICA BUCHAREST - New trends in Bioengineering Education

Daniela Istrati - POLITEHNICA BUCHAREST - Future of Pharmaceutical Engineering Education through Industry Partnerships: A Success Story

Ovidiu Oprea- POLITEHNICA BUCHAREST - Future trends in Inorganic Chemistry Education

Ioan Stefan Voicu - POLITEHNICA BUCHAREST - Modern approaches in Analytical and Environmental Chemistry Education

Catalin Zaharia- POLITEHNICA BUCHAREST - Advanced topics in Polymer Science and Engineering education

Costin Sorin Bildea - POLITEHNICA BUCHAREST - From Classroom to Industry: Preparing Chemical Engineers for the Future

Daniela Ionita - POLITEHNICA BUCHAREST - Future of Education in General Chemistry

Vladimir Lucian Ene - POLITEHNICA BUCHAREST - An epistemological approach on the modern evaluation of students in an informatic age governed by the evolution of nanoscience and AI

17:30 – 19:00

ORAL PRESENTATIONS

Time	Roma Room	Bucharest Room
	Section 5 Pharmaceutical Engineering & Food Safety <i>Chaired by:</i> Daniela Istrati and Nicoleta Chira	Section 3 Green Energy & Chemistry Concepts <i>Chaired by:</i> Anca Cojocar and Daniela Cristina Berger
14:30 – 14:50	Keynote S5-KN-ID249 Simona Nica <i>Azulene-motif in crystal engineering</i>	Keynote S3-KN-ID042 Danut-Ionel Vaireanu <i>The First Romanian National Chemistry Congress - a turning point in the development of chemistry in Romania</i>
14:50 – 15:10	S5-O-ID031 Raul-Cornel Stefan-Pantiş <i>Nanotechnological solutions for Curcumin biodisponibility enhancement</i>	S3-O-ID006 Stefano Bellucci <i>Environmental remediation and sustainable energy solutions through advanced carbon nanomaterials</i>
15:10 – 15:20	S5-O-ID062 Brînduşa - Alina Petre <i>Enzymatic diagnosis of lysosomal rare diseases in dried blood spots using tandem mass spectrometry and fluorimetry - A case study of neuronal lipofuscinoses</i>	S3-O-ID021 Ana Brandão <i>Innovative biowaste-based carbon composites electrodes towards more sustainable and efficient energy storage systems</i>
15:20 – 15:30	S5-O-ID102 Lucia Pintilie <i>Development a new dual inhibitor of DNA gyrase and topoisomerase IV</i>	S3-O-ID063 Andrea Kellenberger <i>Overcoming corrosion issues in bipolar plates for PEMWE for green hydrogen production</i>
15:30 – 15:50	S5-O-ID113 Andrei-Iulian Slabu <i>Linseed oil functionalization through epoxidation and epoxy ring-opening reactions</i>	S3-O-ID120 Adrian Trifan <i>Mapping of ultrasonic tank with a new and simple method (applied for ultrasound extraction of phytocompounds with neuroprotective effect)</i>
	Keynote S5-KN-ID230 Hans-Jacob Skarpeid <i>Perspectives on utilization of protein rest raw materials from marine sources - potentials and challenges; commercial and chemical</i>	S3-O-ID125 Mariana-Dana Damaceanu <i>ProDOT-based polymers for energy saving and energy storage smart windows</i>
		S3-O-ID135 Cezar Comanescu <i>Reactive hydride composites - recent advances and development</i>

Thursday, 5 September 2024

Poster Sessions – Sections 1, 2 and 4 (Madrid Room)

23rd Romanian International Conference on Chemistry and Chemical Engineering

Thursday, 5 September 2024	15:50 – 16:00	S5-O-ID143 Robert I. Botea <i>Rapid determination of acrylamide in processed foods using advanced LC-MS/MS techniques</i>	S3-O-ID211 Marin Gheorghe <i>3D dye sensitized solar cell</i>
	16:00 – 16:10	S5-O-ID081 Rafal Kukawka <i>Bio-based plant resistance inducers as an alternative to pesticides for protecting apple trees</i>	S3-O-ID226 Maria Grapin <i>Photocatalytic activity of TiO₂/Fe₂O₃ composites for rhodamine B degradation</i>
	16:10 – 16:20	S5-O-ID089 Dan Eduard Mihaiescu <i>Solid phase extraction of pesticides from surface water through aerogel nanocomposites and HR-MS characterization</i>	S3-O-ID229 Tiberiu-Marius Gianga <i>Diamond B23's synchrotron radiation circular dichroism – a tool for life and materials sciences</i>
	16:20 – 16:30	S5-O-ID169 Veaceslav Kulcički <i>Simultaneous determination of ursolic, pomolic, oleanolic and rosmarinic acids in lavender extracts. Comparison of qNMR and HPLC data</i>	S3-O-ID243 Simona Rada <i>Nanocomposites obtained from construction and demolition waste as substituent for cement: the mitigating of alkali – silice reaction</i>
	16:30 – 16:40	S5-O-ID220 Cristina Todașcă <i>Enhancement of the nutritional and functional properties of pasta with addition of Romanian Mentha species</i>	S3-O-ID245 Marius Popa <i>Synthesis and characterization of pyrrole-based push-pull donor-acceptor dyes for organocatalyzed atom transfer radical polymerization (O-ATRP)</i>
	16:40 – 16:50		S3-O-ID256 Sarah Aboubakr <i>Towards long-lasting anode-free sodium batteries: a study on the effect of the electrolytes on the plating/stripping process</i>
	17:00 – 17:30	Coffee Break	

Poster Sessions – Sections 1, 2 and 4

ORAL PRESENTATIONS

Time	Roma Room	Bucharest Room
	Section 6.1 Sustainability & Environmental Engineering Chaired by: Mădălina Pandele and Constantin Bobirică	Section 4.1 Nanosciences & Nanotechnology Chaired by: Mehmet Ali Gülgün and Mirijam Vrabec
17:30 – 17:50	Keynote S6-KN-ID258 Pietro Altimari <i>Two Electrodeposition Strategies to Fabricate Porous Zn Electrodes for CO₂ Electroreduction</i>	Keynote S4-KN-ID208 Adelina-Carmen Ianculescu <i>Multiscale structured (Ba,Sr)TiO₃ ceramics: preparation, properties and applications</i>
17:50 – 18:00	S6-O-ID008 Mirela Cismasu (Enache) <i>Remediation of Sites Polluted with Zinc</i>	Keynote S4-KN-ID43 Vrabec Mirijam <i>Insights into nanodiamond formation from Pohorje Mountains (Slovenia)</i>
18:00 – 18:10	S6-O-ID061 Raluca Elena Cârjilă (Mihalache) <i>Preparation and Characterization of Nanoparticles Doped with the Plant Extract for the Wastewater Treatment</i>	S4-O-ID15 Vladimir Lucian Ene <i>3D printed biocomposites based on hydroxyapatite and TiC for implantology</i>
18:10 – 18:20	S6-O-ID109 Cristian Constantin <i>Mathematical Modeling of Air Quality for Biofiltration Systems of Waste Treatment Facilities</i>	S4-O-ID131 Ionela-Cristina Petcu <i>Electrochemical synthesis of TiO₂ and Ag-TiO₂ nanoparticles from deep eutectic solvents and their use in photocatalysis</i>
18:20 – 18:30	S6-O-ID123 Sabrina State <i>The Influence of Several Additives on the Electrodeposition of Ag Using Novel Deep Eutectic Solvent Formulations – An Electrochemical Quartz Crystal Microbalance (EQCM) Investigation</i>	S4-O-ID158 Stefania Stoleriu <i>Enhanced bioresorbable scaffolds for hard tissue engineering based on calcium phosphates</i>
18:30 – 18:40	S6-O-ID145 Daniela Simina Ștefan <i>Technical Solution for the Treatment of Groundwater with a High Level of Loading in Undesirable Substances</i>	S4-O-ID46 Zeynep Başaran Bundur <i>Sustainable and digital transformation in the cement and concrete industry: 3D printing innovations</i>
18:40 – 18:50	S6-O-ID153 Erdin Feizula <i>Modelling of Rain Effect of Soil Sort Leaching Based Laboratory Leaching Tests</i>	

Thursday, 5 September 2024

Poster Sessions – Sections 1, 2 and 4 (Madrid Room)

23rd Romanian International Conference on Chemistry and Chemical Engineering

18:50 – 19:00	S6-O-ID155 Geani Teodor Man <i>Technology Aspects of Thorium Recuperative Separation</i>	S4-O-ID66 Erika Blanzeanu <i>Innovative 3D printed catalytic supports using SLA: incorporating metal and chitosan ligands for superior catalysis</i>
19:00 – 19:10		S4-O-ID50 Ionut-Cristian Radu <i>3D Printed catalyst supports based on metal loaded renewable polymers</i>

Friday – 6th September 2024

	Time	Vienna Room	
		PLENARY SESSION - 4 <i>Chaired by: Ștefania Stoleriu and Ștefan Voicu</i>	
Friday, 6 September 2024	09:00 – 09:40	Rafael LUQUE (King Saud University, SAUDI ARABIA) <i>Benign-by-design methodologies for a more sustainable future: present and future</i>	Poster Sessions – Sections 3, 5 and 6
	09:40 – 10:20	Mehmet Ali GÜLGÜN (Sabancı University, Istanbul, TURKEY) <i>From Waste to a "Greener" Cement: Materials Science and Mineralogy at Work</i>	
	10:20 – 11:00	Ron SMALDONE (University of Texas, Dallas, U.S.A.) <i>Chemical Design Tools for 3D Printing Smart, Functional Materials</i>	
	11:00 - 11:30	Coffee Break	
11:30-12:10	Jose Javier Serrano OLMEDO (Center for Biomedical Technology, Polytechnic University of Madrid, SPAIN) <i>The initial findings of the efficacy of novel magnetic and optical particle-mediated hyperthermia systems for glioblastoma multiforme and melanoma uveal</i>		

12:10 – 12:50	<p>Stefan Ioan VOICU (National University of Science and Technology Politehnica Bucharest, ROMANIA)</p> <p><i>Polymeric membranes: the solution for drinkable water availability at global scale</i></p>	
13:00 – 14:30	<p>Lunch Break</p>	

ORAL PRESENTATIONS

	<p>Viena Room</p> <p>Section 4.2 Nanosciences & Nanotechnology</p> <p><i>Chaired by:</i></p> <p>Mariana Ioniță and Gabriele Meloni</p>	
Time		
14:30 – 14:50	<p><i>Keynote</i></p> <p>S4-KN-ID267</p> <p>Alina M. Balu</p> <p><i>Designer nanocatalysts for the waste-to-pharma concept</i></p>	<p>Poster Sessions – Sections 3, 5 and 6 (Madrid Room)</p>
14:50 – 15:10	<p><i>Keynote</i></p> <p>S4-KN-ID51</p> <p>Catalin Zaharia</p> <p><i>Advances in 3D-Printed Poly(vinyl alcohol) Vascular Grafts: Design, Fabrication, and Medical Implication</i></p>	
15:10 – 15:30	<p><i>Keynote</i></p> <p>S4-KN-ID168</p> <p>Elena Iuliana Biru</p> <p><i>Polybenzoxazine composites – crossing the bridge from industrial to medical applications</i></p>	
15:30 – 15:40	<p>S4-O-ID118</p> <p>Edina Rusen</p> <p><i>One reaction: two types of mechanism SARA-ATRP and SET-LRP for MMA polymerization in the presence of PVC</i></p>	
15:40 – 15:50	<p>S4-O-ID75</p> <p>Mădălina Ioana Necolau</p> <p><i>Advancing sustainability: bio-based thermoset nanocomposites for a greener future</i></p>	

23rd Romanian International Conference on Chemistry and Chemical Engineering

Friday, 6 September 2024	15:50 – 16:00	S4-O-ID65 Derniza-Elena Cozorici <i>Development and optimization of biopolymer-based formulations for 3D bioprinting</i>	Poster Sessions – Sections 3, 5 and 6 (Madrid Room)
	16:00 – 16:10	S4-O-ID005 Celina Maria Damian <i>Expressing the potential of epoxidized corn oil into an efficient anticorrosion nanocomposite material</i>	
	16:10 – 16:20	S4-O-ID224 Violeta-Carolina Niculescu <i>Examining catalytic performance of mesoporous silica against chlorinated pesticides removal</i>	
	16:20 – 16:30	S4-O-ID176 Iulian Berladean <i>Self-assembling bent-core liquid crystals with chiral mesophases</i>	
	16:30 – 16:40	S4-O-ID056 Mihai-Vlăduț Stăncilă <i>Applications of carbon fibers reinforced with nanostructures for applications in aerospace engineering</i>	
	16:40 – 16:50	S4-O-ID267 Bogdan Purcăreanu <i>Antioxidant potential of mesoporous silica material loaded with Achillea Millefolium volatile oil</i>	
	17:00 – 17:30	Coffee Break	
Friday, 6 September 2024	Time	Viena Room Section 6.2 Sustainability & Environmental Engineering <i>Chaired by:</i> Simina Ștefan and Ștefan Voicu	Poster Sessions – Sections 3, 5 and 6
	17:30 – 17:40	S6-O-ID157 Andreea Miron <i>Chitosan-Based Composite Polymeric Beads: An Innovative Approach for Copper Ion Retention</i>	
	17:40 – 17:50	S6-O-ID172 Andra Bucșe <i>Preparation And Characterization of Nanoparticles Doped with the Plant Extract for the Wastewater Treatment</i>	

23rd Romanian International Conference on Chemistry and Chemical Engineering

Friday, 6 September 2024	17:50 – 18:00	S6-O-ID203 Oana Cristina Pârvulescu <i>Marine Residue-Based Fertilizers and Biostimulants for Agronomic and Environmental Benefits</i>	Poster Sessions – Sections 3, 5, 6
	18:00 – 18:10	S6-O-ID192 Andrea Bogyor <i>Kinetic and Thermodynamic Aspects for the Adsorption of Some Synthetic Dyes from their Aqueous</i>	
	18:10 – 18:20	S6-O-ID205 Carolina Constantin <i>Aspects of Removal of U(VI) and Accompanying ions from Aqueous Systems on FeO-based Nanomaterial</i>	
	18:20 – 18:30	S6-O-ID232 Liana Anicai <i>Cerium-Based Conversion Films Developed on LiAl-Layered Double Hydroxide Coatings for Corrosion Protection of Aluminum Alloys</i>	
	18:30 – 18:40	S6-O-ID253 Silviu-Laurentiu Badea <i>Advanced GC-MS-MS Methods for Screening Organochlorine and Organophosphate Pesticides in Aquatic and Solid Environmental Samples</i>	
	18:40 – 18:50	S6-O-ID260 Anamaria Todea <i>Computational strategies and applied biocatalysis for the eco-design of biodegradable oligoesters</i>	

ORAL PRESENTATIONS

Time	Roma Room	Bucharest Room
	Section 1.1 Advanced Strategies in Chemical Engineering & Biotechnology <i>Chaired by:</i> Sorin Costin Bildea and Oana Parvulescu	Section 2.2 Bioengineering & Biomedical Technologies – ebio-hub Conference* <i>Chaired by:</i> Isabel Carrillo and Horia Iovu
14:30 – 14:50	Keynote S1-KN-ID 137 Tanase Dobre <i>Chemical engineering from beginning until today by paradigms</i>	Keynote S2-KN-ID166 Gratiela Gradisteanu Pircalabioru <i>Revolutionizing type 2 diabetes detection and management through liquid biopsy technology</i>
14:50 – 15:10	S1-O-ID 94 Tanase Dobre <i>Modelling of simultaneous sorption of heavy metals in fixed bed columns</i>	S2-KN-ID165 Ciprian Iliescu <i>Microfluidic platforms for drug discovery</i>
15:10 – 15:20	S1-O-ID 105 Ana-Maria Brezoiu <i>Investigating bilberry polyphenolic extracts composition depending on the extraction parameters and extract purification</i>	S2-KN-ID240 Radu Ionescu <i>Volatolomic studies in biomedical research</i>
15:20 – 15:30	S1-O-ID 107 Ionut Alexandru Popa <i>Modeling of volatile organic compounds flow rate produced in automotive industry by painting with complex solvent paints</i>	S2-KN-ID163 Florina S. Iliescu <i>Simple method for biocompatible microneedles fabrication</i>
15:30 – 15:40	S1-O-ID 117 Ianis Pompet <i>Analysis of mass transfer for batch cooper cementation for reactor with magnetic mixing of liquid and fixed cementation surface</i>	
15:40 – 15:50	S1-O-ID 130 Florin Omota <i>High purity ethyl acetate by a single reactive distillation - dividing wall column</i>	
15:40 – 15:50	S1-O-ID 150 Ionut Banu <i>Modeling and simulation of glycerol esterification with acetic acid in a catalytic divided wall distillation column</i>	

Friday, 6 September 2024

Poster Sessions – Sections 3, 5 and 6 (Madrid Room)

23rd Romanian International Conference on Chemistry and Chemical Engineering

Friday, 6 September 2024	15:50- 16:00	S1-O-ID 204 Roxana Jidveian <i>Biodegradable supported catalyst developed as green strategy in biodiesel synthesis</i>	S2-KN-ID116 Jana Ghitman <i>Hybrid fibrous architectures-mediated gene transfer by pDNA nanoparticles into macrophages</i>
	16:00 – 16:10	S1-O-ID 218 Sorina Teiusanu <i>View of environmental monitoring data from a cement plant with Gaussian models</i>	
	16:10 – 16:20	S1-O-ID 219 Sorina Teiusanu <i>Accomplishment and Operation of Environmental Monitoring Systems at a Cement Plant</i>	S2-O-ID076 Feth Eddine Boukhemacha <i>PEI/DNA polyplexes: complexation, characterization, and in vitro biological investigation</i>
	16:20 – 16:30		S2-O-ID188 Laura-Elena Andrei <i>On-chip device with interdigitated electrodes for electrical bacterial lysis</i>
	16:30 – 16:40		S2-O-ID142 Bianca-Maria Tihauan <i>Lipid-based drug delivery systems for biomedical skin regenerative applications</i>
	16:40 – 16:50		S2-O-ID154 Maria-Eliza Puscasu <i>Fabrication of a composite scaffold with single alternating layers using a ceramic extrusion-based manufacturing technique</i>
	16:50 – 17:00		S2-O-ID133 Ileana Rau <i>Chitosan – molecular mass and deacetylation degree influence</i>
	17:00 – 17:30	Coffee Break	

Poster Sessions – Sections 3, 5 and 6 (Madrid Room)

* endorsed by eBio-hub: Chair of Research Centre in Biomedical Engineering (HORIZON EUROPE Grant agreement No. 101087007)

ORAL PRESENTATIONS

Time	Roma Room	Bucharest Room
	Section 1.2 Advanced Strategies in Chemical Engineering & Biotechnology Chaired by: Ionut Banu and Cristian Matei	Prof. Sorin Rosca Competition Chaired by: Iuliana Bîru and Ileana Rău
Friday, 6 September 2024	<p>Keynote S1-KN-ID 101 Daniela Berger <i>Properties of polyphenolic extracts from Vaccinium sp. free and incorporated in mesoporous silica modified with inorganic nanoparticles</i></p>	<p>This competition is an exciting platform for aspiring researchers, graduate students, and early-career scientists to showcase their innovative research projects and groundbreaking ideas. It aims to foster creativity, encourage interdisciplinary collaboration, and provide young researchers with an opportunity to present their work to a panel of esteemed judges and industry professionals.</p> <p>The prize is awarded in the memory of Professor Sorin Roșca who, through his activity of more than 6 decades at the Politehnica Bucharest, has been a permanent supporter of young people towards the study and practice in the field of chemistry.</p> <p>The prize is supported by MDPI and its value is 500 CHF.</p>
	<p>S1-O-ID 10 Maria-Gabriela Alexandru <i>Cyanido-bridged iron(II) spin crossover coordination polymers</i></p>	
	<p>S1-O-ID 23 Andrea Szepecht <i>Ionic liquids as multifunctional modifiers and hardeners for composite materials</i></p>	
	<p>S1-O-ID 100 Mihaela Deaconu <i>Therapeutic platforms based on mesoporous silica nanoparticles coated with a natural polymer</i></p>	
	<p>S1-O-ID 146 Marinela-Victoria Dumitru <i>Retention of ciprofloxacin and carbamazepine from aqueous solutions using chitosan-based composite cryostructures</i></p>	
	<p>S1-O-ID 70 Sergiu Sima <i>Validation of a new high-pressure apparatus for determining clathrate hydrates</i></p>	

23rd Romanian International Conference on Chemistry and Chemical Engineering

Friday, 6 September	Time	Viena Room
	19:00 – 19:20	<i>Closing Ceremony</i>
	20:00	<i>Gala Dinner (Hotel Iaki Restaurant)</i>

POSTER PRESENTATIONS

Section 1 - Advanced Strategies in Chemical Engineering & Biotechnology

Thursday 5 September 2024

Time: 09:00 – 19:00

S1 –P– ID 040 Violeta Melinte (Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania), Andreea Laura Chibac-Scutaru, Viorica Elena Podasca, *Synthesis and physicochemical characterization of chromophore-incorporating polyurethane elastomers*

S1 –P– ID 041 Andreea Laura Chibac-Scutaru (Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania), Viorica Elena Podasca, Violeta Melinte, *Effect of dansyl photosensitizer on enhancing photocatalytic performance of semiconductor nanoparticles (TiO₂, ZnO or Mn₂O₃) embedded in polyurethane matrix*

S1 –P– ID 052 Dawid Zielinski (Poznan Science and Technology Park, Poznan, Poland), Andrea Szepecht, Marcin Smiglak, *Cellulose dissolved in ionic liquids as a way to incorporate in situ generated natural filler into an epoxy composite while the resin is simultaneously crosslinked by ionic liquids*

S1 –P– ID 057 Daniel Dinculescu (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Valentina Ciocan, Cristiana Luminita Gijiu, *Separations techniques for azeotropic mixtures*

S1 –P– ID 059 Cristiana Luminita Gijiu (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Catalina Elena Udrea, Daniel Dinculescu, Sorin Bildea, *Ethanol/water mixtures – separation options*

S1 –P– ID 083 Gabriela Isopencu (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Alexandra Mocanu, Iuliana - Mihaela Deleanu, Miron Adrian Dinescu, Oana Brincoveanu, *Biodegradation studies of biocellulose films loaded with different materials*

S1 –P– ID 097 Anil Abduraman, Mihaela Deaconu, Ana-Maria Brezoiu, Rodica Tatia, Nada K. Sedky, Laila Ziko, Daniela Berger, Cristian Matei (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), *Properties of polyphenolic extracts free and incorporated in mesoporous carriers*

S1 –P– ID 115 Liliana Lazar, Dumitru Coman, Valeria Danilova ("Gheorghe Asachi" Technical University of Iasi, Iasi, Romania), Ioan Mamaliga, *Performance of brine electrolysis process by ion exchange membrane*

S1 –P– ID 129 Adrian Crisciu (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Sergiu Sima, Catinca Secuianu, Dan Vladimir Nichita, *Kinetics of clathrate formation and decomposition: an overview*

S1 –P– ID 141 Diana Egri, Oana Cristina Parvulescu, Violeta Alexandra Ion, Ailin Molosag, Andrei Mot, Aurora Dobrin, Cristian Eugen Raducanu (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Cristina Orbeci, Tanase Dobre, Alexandra Mocanu, Anne Kristin Løes, Joshua Cabell, Athanasios Salifoglou, Carlos Octavio Letelier-Gordo, *Recycling marine residues through composting and compost fermentation*

S1 –P– ID 186 Andra Mihaela Onas (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Ciprian Victor Florea, Matei D. Raicopol, Horia Iovu, Luisa Pilan, *ssDNA-based electrochemical biosensors for aminoglycoside antibiotics detection*

S1 –P– ID 206 Alexandru Tompa (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Maria Alexandru, Diana Visinescu, Sergiu Shova, Florina Dumitru, *Versatile self-assembly of a bis-Schiff base ligand with Zn²⁺ and Ni²⁺*

S1 –P– ID 247 Vlad Tarpa (Aix Marseille Universite, Marseille, France; National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Gabriel Canard, Olivier Siri, *Ammonia sensors based on Ni(II) complexes in quinoid chemistry*

S1 –P– ID 248 Andreea Dragoi (Brinza) (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Raluca-Ioana Stefan-van Staden, Damaris Cristina Gheorghe, Gabriela Stanciu, *Determination of docosahexaenoic acid ethyl ester in the liver of stingray*

S1 –P– ID 252 Andreea-Elena Sandu (Dorneanu) (National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Raluca-Ioana Stefan-van Staden, Catalina Cioates Negut, Gabriela Stanciu, *Determination of estradiol in sapropel and water using a new stochastic microsensor*

S1 –P– ID 264 Ioana Cristina Benea (Politehnica University Timisoara, Timisoara, Romania), Alessandro Pellis, Francisc Peter, *Green approach in synthesizing novel polyesters and polyesteramides with random and block structures from bio-based raw materials*

POSTER PRESENTATIONS

Section 2 - Bioengineering & Biomedical Technologies

Thursday 5 September 2024

Time: 09:00 – 19:00

S2-P-ID027 Daniela Ionita (National University of Science and Technology Politehnica Bucharest, Romania), Andrei Bogdan Stoian, Mariana Prodana, Radu Nartita, Georgeta Totea, Cristian Burnei, Electrospayed composite coatings based on chitosan, bioglass and zinc oxide on Ti-Zr-Ta-Ag for biomedical applications

S2-P-ID028 Mariana Prodana (National University of Science and Technology Politehnica Bucharest, Romania), Marius Enachescu, Moise Calin-Constantin, Iulian Boerasu, Daniela Ionita, Characterization of coatings based on chitosan, bioactive glass, titanium dioxide and zinc oxide nanoparticles prepared by matrix assisted pulsed laser evaporation

S2-P-ID029 Marius Enachescu (Center for Surface Science and Nanotechnology, National University of Science and Technology Politehnica Bucharest, Romania), Moise Calin-Constantin, Andrei B. Stoian, Iulian Boerasu, Daniela Ionita, MAPLE deposition of complex coatings on titanium alloy for bio-applications

S2-P-ID030 Madalina Oprea (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Mariana Ionita, Investigating the interactions between functionalized graphene oxide and antisense oligonucleotides using a computational approach via molecular modelling simulations

S2-P-ID047 Florentina Golgovici (National University of Science and Technology Politehnica Bucharest, Romania), Radu Nartita, Ioana Demetrescu, Electrosynthesis of Drug-Embedded Polymeric Coating Using NADES to Improve HEA Alloy Behavior

S2-P-ID049 Elena Olaret (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Adriana-Elena

Bratu, Jana Ghitman, Andrada Serafim, Development of alginate bead-integrated polymeric dressings for enhanced deep wound care

S2-P-ID053 Maria Minodora Marin (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Rafael Luque Alvarez de Sotomayor, Ioana Catalina Gifu, Elvira Alexandrescu, Silviu Preda, Andrada Serafim, Horia Iovu, Raluca Ianchis, Izabela Stancu, Anca Aurelia Dumitru, Marian Nicolae Verziu, Novel advanced 3D printed materials

S2-P-ID055 Monica Popa, Laura M. Stefan, Silviu Iulian Drob (Institute of Physical Chemistry "Ilie Murgulescu", Bucharest, Romania), Jose M. Calderon Moreno, Corrosion inhibition of carbonate coated magnesium in physiological fluids

S2-P-ID058 Camelia Ungureanu (National University of Science and Technology Politehnica Bucharest, Romania), Silviu Raileanu, Theodor Borangiu, Low-cost digitization of (bio)chemical corrosion processes

S2-P-ID067 Elena Cojocar (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Mariana Ionita, Construction of alginate/cellulose nanofibrils 3D-printed scaffolds double-reinforced with chitosan nanofibers and graphene oxide for bone tissue regeneration

S2-P-ID074 Brindusa Balanuca (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Cristina Ott, Andrei Iulian Slabu, Madalina Ioana Necolau, Andrada Serafim, Bicomponent macromolecular architectures based on methacrylated linseed oil and alginate

S2-P-ID080 Alisa Ioana Ungureanu (National University of Science and Technology Politehnica Bucharest, Romania), Simona Andreea Popescu, Angela

Gabriela Paun, Cristina Dumitriu, Silk fibroin quantum dots applied in electrochemical anti tissue transglutaminase antibodies detection

S2-P-ID085 Simona Popescu (National University of Science and Technology Politehnica Bucharest, Romania), Angela Gabriela Paun, Cristina Dumitriu, Camelia Ungureanu, Nature-inspired biomimetic polymers and nano-engineered structures used for improving antimicrobial effect for dental implants surface

S2-P-ID091 Mihaela Raluca Dobrisan (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Adriana Lungu, Maria Minodora Marin, Gratiela Gradisteanu, Izabela Cristina Stancu, Horia Iovu, Multicomponent scaffolds as 3D extracellular matrix-mimetic biomaterials

S2-P-ID128 Mihaela Raluca Dobrisan (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Georgian Alin Toader, Mariana Ionita, 3D bioprinting of cellulose fiber-loaded gellan/gelatin inks reinforced with graphenic allotropes reliable for tissue engineering structure

S2-P-ID138 Florenta Mihai (National University of Science and Technology Politehnica Bucharest, Romania), Ileana Rau, Verginica Schroder, Influence of oncological treatments on blood parameters

S2-P-ID152 Ana-Maria-Raluca Musat, Cristina Busuioc (National University of Science and Technology Politehnica Bucharest, Romania), Synthesis of cobalt, copper and zinc substituted bioglasses

S2-P-ID161 Otilia Ruxandra Vasile, (National University of Science and Technology Politehnica Bucharest, Romania), Adrian Ionut Nicoara, Diana Camenscic, Roxana Trusca, Cornelia Ilie, Roxana Popescu, Composites based on chitosan and diopside with applications in hard tissue engineering

S2-P-ID162 Marian Verziu (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Radu Ionut-Cristian, Derniza Cozorici, Erika Blanzeanu, Minodora Marin, Anca Dumitru, Catalin Zaharia, Rafael Luque Alvarez de Sotomayor, From seafood waste to Cu based materials by 3D printing

S2-P-ID174 Elena Christen Creanga (Faculty of Pharmacy, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania), Rica Boscencu, Roxana Trusca, Adina Magdalena Musuc, Radu Socoteanu, Mihai Anastasescu, Morphological

and spectral assessment of an unsymmetrical porphyrinic complex with biomedical potential

S2-P-ID181 Irina Lixandru-Petre (eBio-Hub Research-Center, National University of Science and Technology Politehnica Bucharest, Romania), Alexandru Dima, Mihai Dascalu, Ciprian Iliescu, Madalina Musat, Machine learning for enhanced diagnosis and personalized treatment of thyroid cancer

S2-P-ID182 Mihai Fotu (National University of Science and Technology Politehnica Bucharest, Romania), Adrian-Ionut Nicoara, Cristina Busuioc, Synthesis of bioglass-ceramics containing boron

S2-P-ID184 Gabriela Mitea (Faculty of Pharmacy, "Ovidius" University of Constanta, Romania), Verginica Schröder, Irina Mihaela Iancu, Maria Mihaly, Integrating biophysical insights: a systems approach to understanding cancer cells

S2-P-ID194 Angela Gabriela Paun (National University of Science and Technology Politehnica Bucharest, Romania), Cristina Dumitru, Nicoleta Badea, Cristian Pirvu, Bioinspired coatings based on lipid nanocarriers for indomethacin targeted release

S2-P-ID195 Andreea-Valentina Nita (National University of Science and Technology Politehnica Bucharest, Romania, Pitesti University Centre), Andrei Ionut Costin Vaduva, Carmen Mihaela Topala, Loredana Elena Vijan, A spectroscopic study of pazopanib – DNA interaction

S2-P-ID196 Ruxandra Ioana Ionescu (Serbanescu-Iordanescu) (National University of Science and Technology Politehnica Bucharest, Romania, Pitesti University Centre), Cristina Postolache, Carmen Mihaela Topala, Loredana Elena Vijan, Spectral study of some cytostatic drugs used in breast cancer

S2-P-ID201 Ruxandra-Elena Geanaliu-Nicolae (National University of Science and Technology Politehnica Bucharest, Romania), Roxana-Cristina Popescu, Ramona Elena Meja, Georgeta Voicu, Paul Emil Mereuta, Intelligent therapies - bioglasses used in regenerative medicine suitable for local delivery drugs – ketoprofen

S2-P-ID234 Alexandra Constantinescu (National University of Science and Technology Politehnica Bucharest, Romania), Cristian Pirvu, SPR D-fructose detection by modified gold electrodes

S2-P-ID237 Mihai Paduraru (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Elena Iuliana

Biru, Mădălina Ioana Necolau, Horia Iovu, Biomedical uses of guar gum and sodium alginate based hydrogels as bioinks for 3D printing in soft tissue engineering

S2-P-ID242 Paul-Octavian Stanescu (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Romania), Ionut-Cristian Radu, Celina-Maria Damian, Cristina Stavarache, Andra Onas, Ioana Stanoiu, Catalin Zaharia, Controlled grafting of bacterial cellulose microparticles with synthetic chains for drug delivery management

S2-P-ID265 Cristian Pirvu (National University of Science and Technology Politehnica Bucharest, Romania), Alexandra Constantinescu, Camelia Ungureanu, *Escherichia coli* detection by EC-SPR using an electrode modified with phytosynthesized gold nanoparticles

POSTER PRESENTATIONS

Section 4 - Nanosciences & Nanotechnology

Thursday 5 September 2024

Time: 09:00 – 19:00

S4 –P-ID 003 Bogdan Tutunaru (Department of Chemistry, Faculty of Sciences, University of Craiova, Craiova, Romania), *Gold nanoparticles as sensitizers for electrochemical inactivation of Newcastle Virus La Sota type using Au electrode*

S4 –P-ID 026 Ovidiu-Cristian Oprea (Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania and Academy of Romanian Scientists, Bucharest, Romania), Ludmila Motelica, Denisa Ficai, Roxana-Doina Trusca, Anton Ficai, Gabriel Mustatea, Elena Loredana Ungureanu, *Antimicrobial packaging based on ZnO modified polyethylene loaded with cinnamaldehyde*

S4 –P-ID 034 Ludmila Motelica (Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology Politehnica Bucharest, Romania and Academy of Romanian Scientists, Bucharest, Romania), Gabriela Petrisor, Denisa Ficai, Ovidiu-Cristian Oprea, Roxana-Doina Trusca, Anton Ficai, Ecaterina Andronescu, Alina Maria Holban, *Antimicrobial cellulose-based films with zinc oxide and mesoporous silica loaded with cinnamon essential oil*

S4 –P-ID 038 Viorica-Elena Podasca (Polyaddition & Photochemistry Department, Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania), Violeta Melinte, Andreea-Laura Chibac-Scutaru, *Design of ZnO, Mn₂O₃ and TiO₂ particles: synthesis, characterization and photocatalytic study*

S4 –P-ID 073 Iulia Nicoleta Radu (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Celina Maria Damian, Madalina Ioana Necolau, *Synthesis of polymeric bionanocomposites based on epoxidized corn oil and organophilized Montmorillonite*

S4 –P-ID 086 Adelina-Gabriela Niculescu (Department of Science and Engineering of Oxide Materials and Nanomaterials, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania and Research Institute of the University of Bucharest—ICUB, University of Bucharest, Bucharest, Romania), Alexandra Cătălina Bîrcă, Alina Moroşan, Dana-Ionela Tudorache, Bogdan Ştefan Vasile, Daniela Istrati, Tony Hadibarata, Dan Eduard Mihaiescu, Alexandru Mihai Grumezescu, *New 3D vortex microfluidic system tested for magnetic nanocomposite formulations*

S4 –P-ID 087 Dana-Ionela Tudorache (Department of Science and Engineering of Oxide Materials and Nanomaterials, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Adelina-Gabriela Niculescu, Alexandra Cătălina Bîrcă, Alina Maria Holban, Ariana Hudiţă, Bogdan Ştefan Vasile, Daniela Istrati,

Tony Hadibarata, Dan Eduard Mihaiescu, Alexandru Mihai Grumezescu, *Multiple-shell magnetite nanoparticles for biomedical applications*

S4 –P-ID 088 Adelina-Gabriela Niculescu, Roxana Doina Truşcă, Alina Moroşan, Marius Rădulescu, Dana-Ionela Tudorache, Bogdan Ştefan Vasile, Daniela Istrati, Tony Hadibarata, Dan Eduard Mihaiescu, **Alexandru Mihai Grumezescu** (Department of Science and Engineering of Oxide Materials and Nanomaterials, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania and Research Institute of the University of Bucharest—ICUB, University of Bucharest, Bucharest, Romania), *Evaluation of water decontamination capacity using advanced nanostructured magnetic aerogel composite materials*

S4 –P-ID 095 **Denisa Ficai** (Department of Inorganic Chemistry, Physical Chemistry and Electrochemistry, Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania; National Center for Micro and Nanomaterials, National University of Science and Technology Politehnica, Bucharest, Bucharest, Romania and Academy of Romanian Scientists, Bucharest, Romania), Ludmila Motelica, Cristina Chircov, Roxana Doina Trusca, Adrian Vasile Surdu, Bogdan Stefan Vasile, Ovidiu Cristian Oprea, Geanina Voicu, Victor-Eduard Peteu, Anton Ficai, Manuela Calin, *Magnetic nanoparticles for targeted antitumoral therapy*

S4 –P-ID 096 **Mariana Jian** (Laboratory of Tissue Engineering and Cell Cultures, Nicolae Testemitanu State University of Medicine and Pharmacy, Chisinau, Moldova), Ludmila Motelica, Denisa Ficai, Ovidiu-Cristian Oprea, Vitalic Cobzac, Anton Ficai, Viorel Nacu, *Biomaterials based on collagen from the umbilico-placental complex for use in tissue engineering*

S4 –P-ID 099 Laura-Nicoleta Dragomir, Ştefania Stoleriu, **Georgeta Voicu** (Department of Science and Engineering of Oxide Materials and Nanomaterials, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Adrian-Ionuţ Nicoară, *β-TCP and bioglass based scaffolds obtained using polyurethane foam template route*

S4 –P-ID 122 **Madalina Ioana Necolau** (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania and Academy of Romanian Scientists, Bucharest, Romania), Cosmin Pauliuc, Ana Roxana Stefan, Elena Iuliana Biru, Horia Iovu, *Exploiting thiol-ene click for biocompatible benzoxazine-thiol copolymers: unveiling synergistic effects on mechanical properties*

S4 –P-ID 124 **Adi Ghebaur** (Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Cristina Elena Stavarache, Sorina Alexandra Garea, Nicolescu Teodor, *Methacrylate functionalized halloysite used in Inflammatory Bowel Diseases treatment*

S4 –P-ID 127 **Cristina Chircov** (Department of Science and Engineering of Oxide Materials and Nanomaterials, Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania and National Research Center for Micro and Nanomaterials, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Vlad Cocoş, Adrian Ionuţ Nicoară, Roxana Doina Truşcă, Ariana Hudiţă, *3D-printed bioglass and iron disulfide composite materials for hard tissue engineering*

S4 –P-ID 140 **Adrian Ionuţ Nicoară** (Department of Science and Engineering of Oxide Materials and Nanomaterials, Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania and National Research Center for Micro and Nanomaterials, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Mihai Fotu, Ştefan Manolache, Cristina Chircov, Roxana Doina Truşcă, Gabriela Olimpia Isopencu, *Li-doped bioactive glasses for enhanced bone tissue regeneration*

S4 –P-ID 160 **Bogdan Ştefan Vasile** (Research Center for Advanced Materials, Products and Processes, National University of Science and Technology POLITEHNICA Bucharest, Romania and National Research Center for Micro and Nanomaterials, National University of Science and Technology Politehnica Bucharest, Romania), Adrian Ionuţ Nicoară, Ioana-Cristina Cernat, Adela Banciu, *Coatings based on mesoporous silica/hydroxyapatite and chitosan for improving titanium surfaces*

S4 –P-ID 167 **Alexandra Cătălina Bîrcă** (Center for Advanced Research on New Materials, Products and Innovative Processes—CAMPUS Research Institute, National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Andreea Gabriela Bratu, Alexandru Mihai Grumezescu, Roxana Truşcă, Bogdan Ştefan

Vasile, Ariana Hudiță, Alina Maria Holban, *Dual-action potential: zinc stannate nanoparticles in cancer and infection treatments*

S4 –P-ID 180 I.M.A. Oprica, M. Beregoi, I. Constantinoiu, G. Popescu, S.I. Jinga, **C. Busuic** (National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), *Development of new scaffolds for bone substitution by electrospinning and laser ablation*

S4 –P-ID 193 **Gârea Sorina Alexandra** (Bioresources and Polymer Science Department, Faculty of Chemical Engineering and Biotechnology, National University of Science and Technology Politehnica Bucharest, Romania and Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Ghebaur Adi, Stavarache Cristina, *Hybrid hydrogels for drug encapsulation*

S4 –P-ID 197 **Marius Eduard Matei** (Faculty of Horticulture, University of Agronomic Sciences and Veterinary Medicine of Bucharest, Bucharest, Romania), Irina Fierascu, Radu Claudiu Fierascu, Roxana Ioana Matei, Anda Maria Baroi, Toma Fistos, Ioana Silvia Hosu, *Bioactive compounds from medicinal and aromatic plants waste: perspectives in nanotechnology for biomedical applications*

S4 –P-ID 199 **Roxana Ioana Matei** (National Institute for Research & Development in Chemistry and Petrochemistry–ICECHIM, Bucharest, Romania and Faculty of Chemical Engineering and Biotechnology, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), Radu Claudiu Fierascu, Irina Fierascu, Anda Maria Baroi, Toma Fistos, Ioana Silvia Hosu, Irina Elena Chican, *Materials and technologies for environmental protection from laboratory scale to industrial applications*

S4 –P-ID 221 **Nathanael Murat** (Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania), Alina-Giorgiana Brotea, Madalina Marina Hrubaru, Eleonora-Mihaela Ungureanu, *Chemically modified electrodes based on azulene-1-yl-2-phenylloxazol-5(4H)-one for heavy metal analysis*

S4 –P-ID 228 **Elena Chitanu** (National Institute for Research and Development in Electrical Engineering ICPE-CA, Bucharest, Romania), Iulian Iordache, Gabriela Beatrice Sbarcea, Virgil Marinescu, Delia Patroi, *The influence of deposition parameters on structural and morphological properties of chromium thin films*

S4 –P-ID 235 **Irina Petreanu** (National Research and Development Technologies for Cryogenic and Isotopic Technologies, ICSI Ramnicu Valcea, Romania), Violeta Carolina Niculescu, Amalia Soare, Mircea Teodorescu, *Active filler based on functionalized silica to enhance electrolyte polymer membranes*

S4 –P-ID 257 Eugenia Eftimie Totu, **Daniel Costinel Petre** (Department of Analytical Chemistry and Environmental Engineering, Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania), *Considerations on measurands in nanomaterials analysis*

S4 –P-ID 262 **Radu Cercel** (National Institute of Materials Physics, Magurele, Romania), Monica Dinescu, Adelina Udrescu, Cristina Stefania Florica, Andreea Androne, Andreea Nila, Adam Lorinczi, Stefano Bellucci, Mihaela Baibarac, *Composites based on titanium dioxide and carbon nanoparticles as catalyst for the photodegradation of antibiotics*

S4 –P-ID 263 **Mihaela Baibarac** (National Institute of Materials Physics, Magurele, Romania), Ion Smaranda, Adelina Udrescu, Monica Dinescu, Teodora Burlanescu, Andreea Androne, Andreea Nila, Madalina Chivu, Catalin Negrila, Ionel Mercioniu, Stefano Bellucci, *Optical properties of membranes based on poly(vinyl chloride), single-wall carbon nanohorns and titanium dioxide nanoparticles*

S4 –P-ID 266 **Irina Elena Doicin** (Department of Science and Engineering of Oxide Materials and Nanomaterials, Faculty of Chemical Engineering and Biotechnologies, Bucharest, Romania), Ionela Andreea Neacsu, Vladimir Lucian Ene, Alexandra Catalina Birca, Alina Maria Holban, Ecaterina Andronescu

Synthesis and characterization of ZnO-coated cotton textiles for antimicrobial use in healthcare

POSTER PRESENTATIONS

Section 3 - Green Energy & Chemistry Concepts

Friday 6 September 2024

Time: 09:00 – 19:00

S3-P-ID013 **Ioana-Alina Ciobotaru** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Oana Camelia Mic, Danut-Ionel Vaireanu, *The use of citrus x clementine peel extract as a corrosion inhibitor of carbon steel in NaCl aggressive media*

S3-P-ID032 **Adina Ionuta Gavrila** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Adrian Trifan, Ioana Popa, Laura Maholea, Erdin Feizula, *Ultrasound assisted extraction of phytochemicals from Melissa Officinalis L with neuroprotective effect*

S3-P-ID035 **Ioana Maior** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Angela Georgiana Mareş, Ioana-Maria Nicola, *Electrodeposition of amorphous nickel/gold layers on a copper substrate for electrical contacts*

S3-P-ID036 **Chipurici Petre** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Trifan Adrian, Erdin Feizula, Gavrila Adina-Ionuta, *Green extraction of biocompounds with neuroprotective properties from tomato processing waste*

S3-P-ID039 **Oana Ciocirlan** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Ana Cătălina Diculescu, Ludmila Motelica, Ovidiu Oprea, Sergiu Sima, Paul Stănescu, *Natural deep eutectic solvents as green plasticizers for food films based on chitosan*

S3-P-ID092 **Ana-Maria Drăghici-Popa** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Adina Ionuța Gavrilă, Cristian Aurelian Boscornea, Ioana Popa, *Bioactive compounds extraction using sequential green technology: ultrasound and microwave*

S3-P-ID093 **Ioana Popa** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Ana-Maria Drăghici-Popa, Adina Ionuța Gavrilă, Diana-Ioana Buliga, Cristian Aurelian Boscornea, *A promising solvent, fatty acid ethyl esters, for ultrasound-assisted extraction of liposoluble bioactive compounds*

S3-P-ID106 **Anca Cojocar** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Ioana Maior, Adriana-Simona Catranguiu, Gabriela Elena Badea, Petru Cret, *Effect of cerium content on the corrosion behavior of cerium doped hydroxyapatite chitosan coatings on steel in aggressive media*

S3-P-ID114 **Mihaela Mîndroiu** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Roberta Irodia, Vlad-Florin Iacob, Alexandru Cristian Manea, Alexandru-Ştefan Musteață, *TiO₂-based electrocatalyst modified with star-shaped cobalt nanostructures for electrocatalytic hydrogen evolution reaction*

S3-P-ID132 **Ana-Maria Barbu** (University of Bucharest, Romania), Ana-Maria Barbu, Valentina-Claudia Popa, Petruta Oancea, Adina Gavrila, Maria Marinescu, Christina Zalaru, *Identification, determination of the content of bioactive compounds from Anagallis arvensis L. Extracts*

S3-P-ID164 **Maria Marinescu** (University of Bucharest, Romania), Diana Mihaela Popescu, Lucia Elena Ionescu, Christina Marie Zălaru, Claudia-Valentina Popa, *Synthesis, cytotoxicity, antibacterial activity and DFT study of some pyrimidinone compounds*

S3-P-ID175 **Diana-Ioana Buliga** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Ioana Popa, Aurel Diacon, Cristian Aurelian Boscornea, *Optimization of a green method for extracting bioactive compounds from plant materials and techniques for stabilization improvement*

S3-P-ID202 **Alina Marieta Simion** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Cristian Simion, Andrada Ştefania Racovanu, Adina Ionuta Gavrila, *Microwave assisted enzymatic transesterification for biodiesel production*

S3-P-ID214 **Elvin Hoge** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Alexandra Constantinescu, Cristian Pirvu, *New PLA - NiCu electrode for hydrogen production*

S3-P-ID231 Liana Anicai (Center of Surface Science and Nanotechnology, National University of Science and Technology POLITEHNICA Bucharest, Romania), Laura-Bianca Enache, Oana Lazar, Geanina Mihai, Marius Enachescu, Ayrat Dimiev, *One-pot synthesis of Pt-Cu nanocomposites on carbon black support with electrocatalytic activity for hydrogen evolution reaction during water electrolysis*

S3-P-ID244 Roxana Rada (Technical University of Cluj - Napoca, Romania), Ramona Chelcea, Simona Rada, Daniela Lucia Manea, Dumitrița Moldovan, Sergiu Macavei, Eugen Culea, *Metallic composites based on construction and demolition waste in standard / expired cement paste: structure and mechanical properties*

S3-P-ID254 Radu Dorin Andrei (National Research and Development Institute for Cryogenic and Isotopic Technologies, ICSI Rm. Valcea, Romania), Luisa Roxana Mandoc, Giorgian Cosmin Ungureanu, Mihaela Ramona Buga, *Matching porous anode materials and ion-conducting polymer electrolyte to enhance the performance of SSBs*

S3-P-ID255 Alexandru Rizoiu (National Research and Development Institute for Cryogenic and Isotopic Technologies, ICSI Rm. Valcea, Romania), Sarah Aboubakr, Cosmin Ungureanu, Adnana Spînu – Zăuleț, Mihaela Buga, Alexandru Vlad, Dănuț-Ionel Văireanu, *Comparative study on different electrolytes in anode-free Na metal cell design configuration*

POSTER PRESENTATIONS

Section 5 - Pharmaceutical Engineering & Food Safety

Friday 6 September 2024

Time: 09:00 – 19:00

S5-P-011 Daniel PREDA (National University of Science and Technology POLITEHNICA Bucharest, Romania), Maria Lorena JINGA, Gabriel-Lucian RADU, Gabriela-Iulia DAVID, *Determination of dipyrindamole by disposable MIP-based electrochemical sensor*

S5-P-012 Elena Loredana Ungureanu (National R&D Institute for Food Bioresources - IBA Bucharest, Romania), Andreea Lavinia Mocanu, Corina Alexandra Stroe, Ovidiu Cristian Oprea, Gabriel Mustățea, *Safety issues of antimicrobial food packaging materials*

S5-P-033 Daniela Istrati (National University of Science and Technology POLITEHNICA Bucharest, Romania), Mara Neagu, Alina Moroșan, Dan Eduard Mihaiescu, *Hydrogels based on natural extracts and Zn/Ti nanostructured systems for solar protection applications*

S5-P-044 Fulvia Manolache (National Institute of R&D for Food Bioresources IBA Bucharest, Romania), Mirela Cucu, Mihaela Multescu, Gabriela Criveanu-Stamatie, Beatrice Poteras, Diana Constantinescu-Aruxandei, Denisa Duta, *Characterization and potential health benefits of nutrient-rich by-products from various food sectors*

S5-P-090 Cristina Ott (National University of Science and Technology POLITEHNICA Bucharest, Romania), Andrei Iulian Slabu, Brindusa Balanuca, Madalina Ioana Necolau, Raluca Stan, *Double functionalized linseed oil monomers and derived polymeric materials*

S5-P-103 Ciprian Victor Florea (National University of Science and Technology POLITEHNICA Bucharest, Romania), Robert Crețu, Anamaria Hanganu, Alexandru Tompa, Matei D. Raicopol, *Redox-active thiosemicarbazone ligands for Hg(II) sensing applications*

S5-P-104 Matei D. Raicopol (National University of Science and Technology POLITEHNICA Bucharest, Romania), Bianca Dimitrov, Madalina Ioana Necolau, Brindusa Balanuca, *Preliminary assessment of alginate-based membranes containing bioactive ingredients*

S5-P-111 Radu Ciprian Racoviță (National University of Science and Technology POLITEHNICA Bucharest, Romania), Maria Daniela Ciucă, *Comparative photostability of tricyclic antidepressant drugs in aqueous solution*

S5-P-119 Paul Cătălin Balaure (National University of Science and Technology POLITEHNICA Bucharest, Romania), Valentina Grumezescu, Alexandra Cătălina Bîrcă, Aurelia Bratu, Adelina Gabriela Niculescu, Bogdan Ștefan Vasile, Alina Maria Holban, Ionela C. Voinea, Miruna S. Stan, Alexandru Mihai Grumezescu, *Thin coatings based on magnetic nanoparticles for protection of medical devices against microbial infection*

S5-P-135 Aurelia Bratu (National University of Science and Technology POLITEHNICA Bucharest, Romania), Mihaela Tociu, Mihaela Mihalache, Paul Cătălin Balaure, *Compositional characterization of the fruits of Hippophae rhamnoides and their use*

S5-P-171 Veaceslav Kulcički (Moldova State University, Institute of Chemistry, Chișinău, Republic of Moldova), Serghei Carpencov, *Molecular docking and ADMET studies of cytotoxic ent-Kauranic derivatives*

S5-P-185 Maciej Szychalski (Adam Mickiewicz University Foundation, Poznan, Poland), Rafał Kukawka, Bartosz Grzempa, Agnieszka Kiniec, Renata Gaj, Marcin Smiglak, *Synthesis of novel salicylic acid-based ionic liquids for use in agriculture*

S5-P-189 Nicoleta Badea, Diego Fernando Samayoa Alvarado, Daniela Istrati, Mihaela Tociu, **Ioana Lăcătușu** (National University of Science and Technology POLITEHNICA Bucharest, Romania), *Hybrid carbohydrate-lipid nanocarriers loaded with synthetic and natural actives for functional cosmeceutical products*

S5-P-190 Ioana Lacatusu, Cristina Ott, Marcela-Elisabeta Barbinta-Patrascu, **Nicoleta Badea** (National University of Science and Technology POLITEHNICA Bucharest, Romania), *Dual flavonoids entrapped into nanostructured lipid carriers with effective vascular protective effects*

S5-P-217 Georgiana Irina (Bercea) Vizitiu (National University of Science and Technology POLITEHNICA Bucharest and Ovidius University of Constanta, Romania), Simona Dobrinas, Alina Soceanu, Ana-Maria Cristea, Oana Cristina Parvulescu, Vasile Lavric, *Quality indicators of various forms of fruits*

S5-P-222 Mihaela Tociu (National University of Science and Technology POLITEHNICA Bucharest, Romania), Aurelia Bratu, Nicoleta Chira, Ioana Lăcătușu, Cristina Todașcă, *Characterization and nutritional properties of the fruits from different varieties of Corylus avellana and possibilities of their valorization*

S5-P-225 Diana Ionela Popescu (Stegarus) (National Research and Development Institute for Cryogenic and Isotopic Technologies – ICSI, Râmnicu Vâlcea, Romania), Oana Romina Botoran, Corina Oprita (Cioara), Violeta-Carolina Niculescu,

Determination of pesticides residues in greengrocery using gas chromatography-mass spectrometry

S5-P-241 Andreea Donise (National University of Science and Technology POLITEHNICA Bucharest, Romania), Emanuela Craciun, Camelia Cristea, *Microbial incidence in food products of animal origin*

S5-P-251 Cristian Florea, **Nicoleta-Aurelia Chira** (National University of Science and Technology POLITEHNICA Bucharest, Romania), Mihaela Tociu, Aurelia Bratu, Niculina Ionescu, Gabriel Florin Anton, *Functional foods: enhancing the nutritional value of biscuits through protein complementation and improvement of the fatty acid profile*

S5-P-259 Cristian Valentin Fieru (National University of Science and Technology POLITEHNICA Bucharest, Romania), Ileana Rău, Mihaela Begea, Maria Mihaly, Maria Cristina Todașcă, *Designing the sterilization regime for canned chicken meat in own juice using lethality as a tool to ensure sterility*

POSTER PRESENTATIONS

Section 6 - Sustainability & Environmental Engineering

Friday 6 September 2024

Time: 09:00 – 19:00

S6 – P– ID004 Cristina Modrogan (National University of Science and Technology POLITEHNICA Bucharest), Oanamari Daniela Orbuluț, Simona Căprărescu, Raluca Elena Carjila, Annette Madelene Dăncilă, *Preparation and Characterization of Adsorbents from Solid Waste*

S6 – P– ID007 Mădălina Grinzeanu (National University of Science and Technology POLITEHNICA Bucharest), *Preparation of Biocides with Antimicrobial Activity on Pathogenic Microorganisms Present in Surface Water*

S6 – P– ID009 Aliona Olari, Annette Madelene Dăncilă (National University of Science and Technology POLITEHNICA Bucharest), Oanamari Daniela Orbuluț, Cristina Modrogan, Simona Căprărescu, *Comparative Analysis of the Efficiency of Potential Materials Used in the Adsorption Process of Sulfur Dioxide*

S6 – P– ID016 Cristina Orbeci (National University of Science and Technology POLITEHNICA Bucharest), Giovanina - Iuliana Ionică, Constantin Bobirică, Liliana Bobirică, Annette Madelene Dăncilă, *Photocatalytic Degradation of Ivermectin from Wastewater*

S6 – P– ID017 Constantin Bobirică (National University of Science and Technology POLITEHNICA Bucharest), Cristina Orbeci, Liliana Bobirică, Giovanina - Iuliana Ionică, Oanamari Daniela Orbuluț, *Kinetic Modelling of the Photocatalytic Mineralisation of Endocrine Disruptors in Aqueous Solutions*

S6 – P– ID018 Giovanina - Iuliana Ionică (National University of Science and Technology POLITEHNICA Bucharest), Cristina Orbeci, Liliana Bobirică, Constantin Bobirică, Ioan Ștefan Voicu, *A Comparative Study on the Efficiency of Degradation of Azithromycin from Wastewater by Different Functionalized Materials*

S6 – P– ID019 Liliana Bobirică (National University of Science and Technology POLITEHNICA Bucharest), Cristina Orbeci, Giovanina - Iuliana Ionică, Roberta Irodia, Cristian Pîrvu, Constantin Bobirică, *Photocatalytic Reactor for the Degradation of Estrogens from Wastewater*

S6 – P– ID020 Margareta Elena Nica (Morogan) (National University of Science and Technology POLITEHNICA Bucharest), Cristina Orbeci, Ileana Rău, Larisa Mădălina Meliță, Liliana Bobirică, Giovanina - Iuliana Ionică, Constantin Bobirică, *Photocatalytic Reactor for the Degradation of Estrogens from Wastewater Identification of the Binders Used in Historic Buildings Under Restoration*

S6 – P– ID022 Oanamari Daniela Orbuluț (National University of Science and Technology POLITEHNICA Bucharest), Cristina Modrogan, Constantin Bobirică, Annette Madelene Dăncilă, Liliana Bobirică, *Dynamics of Nitrate Ion Migration Processes in Soil Columns Using Permeable Reactive Barriers*

S6 – P– ID025 Simona Căprărescu (National University of Science and Technology POLITEHNICA Bucharest), GrațIELA Teodora Tihan, Roxana Gabriela Zgărian, Alexandru Mihai Grumezescu, Cristina Modrogan, Annette Madelene Dăncilă, *Performance of Polymeric Membrane Containing Nanoparticles for the Removal of Heavy Metal Ions from a Simulated Wastewater*

S6 – P– ID045 Sorina Laura Topală, Ioana Diaconu (National University of Science and Technology POLITEHNICA Bucharest), Cristina Andreea Tudor, Georgiana Cernica, Cristina Orbeci, Oana Pârvulescu, *Efficiency and Selectivity of Some Ionic Liquids in the Pertraction of Some Emerging Pollutants through Bulk Liquid Membranes*

S6 – P– ID054 George-Octavian Buică (National University of Science and Technology POLITEHNICA Bucharest), Mariana Prodana, Cristina Dumitriu, *Metal Ions Detection on Ti/TiO₂ Nanotubes Electrodes*

S6 – P– ID060 Roxana Muntean (Politehnica University Timișoara), Sebastian Ambruș, George Dima, Andrea Kellenberger, Nicolae Vaszilcsin, *Recycling Strategies for Materials Involved in PEM Water Electrolysis*

S6 – P– ID069 Denisa Nicoleta Airinei (National University of Science and Technology POLITEHNICA Bucharest), *Degradability Studies of High-Density Polyethylene Bags, Respectively of Biodegradable Bags*

S6 – P– ID072 Mădălina Oprea (National University of Science and Technology POLITEHNICA Bucharest), Andreea Mădălina Pandele, Ștefan Ioan Voicu, *Covalent Immobilization of Crown Ethers onto Polymeric Membranes Surface for Potential Retention of Heavy Metals from Wastewater*

S6 – P– ID084 Andreea Mădălina Pandele (National University of Science and Technology POLITEHNICA Bucharest), Mădălina Oprea, Ștefan Voicu, *Crown Ethers Immobilized onto Graphene Oxide Polymeric Composite Membranes*

S6 – P– ID110 Claudia-Maria Simonescu (National University of Science and Technology POLITEHNICA Bucharest), Elișoara Narcissa Toma, Ioan Călinescu, David-Daniel Neagu, *Valorization of Mining Tailings by Adsorption on Calcium Alginate*

S6 – P– ID112 Sorina Alexandra Leau (Institute of Physical Chemistry – Ilie Murgulescu of the Romanian Academy), Mariana Marin, Cecilia Lete, Ioana Diaconu, Cristian Matei, Stelian Lupu, *Development of Nanostructured Electrochemical Sensing Platforms by Novel Sinusoidal Currents Method*

S6 – P– ID136 Aurelia Cristina Nechifor (National University of Science and Technology POLITEHNICA Bucharest), Luminița Stoica, Andreia Pîrțac, *Hydrogen Sulfide Separation from Impure Specific Air*

S6 – P– ID139 Sorina Alexandra Leau, Mariana Marin, Cecilia Lete, Stelian Lupu (National University of Science and Technology POLITEHNICA Bucharest), *Innovative and Efficient Synthesis of Nanocomposite Materials for Electrochemical Sensing Applications*

S6 – P– ID144 Andreia Pîrțac (National University of Science and Technology POLITEHNICA Bucharest), Gheorghe Nechifor, *Recuperative Separation by Composite Membranes of the Compounds Involving Olfactory Discomfort*

S6 – P– ID147 Mihaela Caftanachi, Liliana Lazar, Leonid Vasiliu, Maria Harja (Gheorghe Asachi Technical University of Iasi), *Low Carbon Dioxide Emission in Inorganic Binder Materials Obtaining*

S6 – P– ID148 Mihai Vrabie, Lacramioara Rusu, Maria Harja (Gheorghe Asachi Technical University of Iasi), *Minimization of Environmental Pollution in Cementitious Composites Production*

S6 – P– ID149 Florina Lungu (Ioniță) (National University of Science and Technology POLITEHNICA Bucharest), Daniela Simina Ștefan, *Methods used for removal of pharmaceuticals from water*

S6 – P– ID156 Georgeta Teodorescu (Diaconescu) (National University of Science and Technology POLITEHNICA Bucharest), Daniela Simina Ștefan, Alexa Maria Croitoru, Magdalena Boșomoiu, *The Packaging Between the Beneficial and the Negative Effects*

S6 – P– ID159 Eduard Ionut Piscanu (National University of Science and Technology POLITEHNICA Bucharest), Ștefan Ioan Voicu, *Functionalized Cellulose Acetate Membranes: Overcoming Challenges for Efficient Heavy Metal Removal in Water Purification*

S6 – P– ID170 Adina Alexandra (Matei) Scarlat (National University of Science and Technology POLITEHNICA Bucharest), *Degradation of Malathion Pesticide from an Agricultural Water Using Electrocoagulation Process*

S6 – P– ID173 Elena Ristea (National Institute for Marine Research and Development “Grigore Antipa”, Mamaia, National University of Science and Technology POLITEHNICA Bucharest), Gheorghe Nechifor Andra Oros, Diana Danilov, Nicoleta Damir, Oana Cristina Pârvulescu, Vasile Lavric, *Evaluation of Heavy Metal Concentrations in the Components of the Marine Ecosystem along the Romanian Black Sea Coast*

S6 – P– ID177 Gabriele-Mario Bogdan (Babeș-Bolyai University), Marian-Iosif Frincu, Sorin-Aurel Dorneanu, *Electrochemical Preparation and Regeneration of Raw Materials used in Metals Recovery from Waste Printed Circuit Boards Process*

S6 – P– ID183 Florenta Daniela Constantinov (National University of Science and Technology POLITEHNICA Bucharest), Gheorghe Nechifor, Lucian Constantin, *Comparison of Three Metal Doped Titanium Dioxide Photo-Catalysts Performances for Treatment of Municipal Wastewater Under Simulated Solarlight*

S6 – P– ID187 Anamaria (Ilie) Niculescu (National University of Science and Technology POLITEHNICA Bucharest), Oana Pârvulescu, Tănase Dobre, Chis Timur, Simona Dobrină, Semaghiul Birghila, Nicoleta Matei, *Effects of Metal Pollution to the Constanta Area Soil*

S6 – P– ID200 Carlos M. Pereira (Faculdade de Ciências da Universidade do Porto), Thacilla Menezes, Ana T. S. C. Brandão, Renata Costa, *Electrochemical Processing of Wastewater from Leather Finishing*

S6 – P– ID207 Anca Răzvan, Claudia Simonescu, Florina Dumitru (National University of Science and Technology POLITEHNICA Bucharest), Daniela C. Culita, Ovidiu Oprea, *Novel PMOs Materials as Highly Efficient Adsorbents*

S6 – P– ID209 Adriana Ionela Mihail (National University of Science and Technology POLITEHNICA Bucharest), Cristina Modrogan, *Effects of Metal Pollution to the Constanta Area Soil Dexamethasone Degradation in Aqueous Solution by a Photocatalytic UV / H₂O₂ / Al₂O₃*

S6 – P– ID233 Daniela Florea (National Institute for Research and Development on Marine Geology and Geoecology – GeoEcoMar), Florina Rădulescu, Dan-Lucian Vasiliu, Andra Bucșe, Albert Scricciu, *Assessment of Heavy Metals Contamination in Danube River Sediments*

S6 – P– ID246 Cristina Firincă (INCDCP-ICECHIM), Lucian-Gabriel Zamfir, Mariana Constantin, Iuliana Răut, Radu Claudiu Fierăscu, Mihaela Doni, Luiza Jecu, Ana-Maria Gurban, Tatiana Eugenia Șesan, *Optimized Bioremoval of Heavy Metals from Wastewater Using Trichoderma sp. Biomass*

S6 – P– ID250 Vasilica-Alisa Arus ("Vasile Alecsandri" University of Bacău), Ana-Maria Georgescu, Ana-Maria Roșu, Nicoleta Platon, Gabriela Muntianu, Oana-Cristina Pârvulescu, Ileana Denisa Nistor, *Biomass Enriching the Nutritional Value of White Wheat Bread with Buckwheat Flour*

S6 – P– ID261 Ioan Bîtcan (Politehnica University Timisoara), Alessandro Pellis, Andreea Petrovici, Diana Dăescu, Francisc Peter, Anamaria Todea, *Enzymatic synthesis and characterization of adipic acid oligoesters with aliphatic, cyclic, or aromatic diols*

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