

RICCCE 24

**24th Romanian International Conference on
Chemistry and Chemical Engineering
Poiana Brasov, ROMÂNIA, September 1-4, 2026**

Conference Program





Tuesday –September 1st, 2026

Tuesday, September 1 st , 2026	Time	
	14.00 - 17.00	Registration and collecting conference materials
	17:00 – 17:15	Opening ceremony (Ana Ballroom)
		PLENARY SESSION - 1 <i>Chaired by: Cristina Orbeci and Cristian Pirvu</i>
	17:15 – 17:55	Horia IOVU (National University of Science and Technology Politehnica Bucharest, ROMANIA) <i>Advanced 3D-Bioprinting for synthesis of various biomedical devices: from biomimetic tissues to breast phantoms</i>
	17:55 – 18:35	Mirosław CHORAŻEWSKI (University of Silesia in Katowice, Institute of Chemistry, POLAND) <i>Can high-pressure calorimetry record hot-headed, incompatible molecules working together? A prelude to molecular springs and shock absorbers</i>
	19:00	WELCOME COCKTAIL (Ana Hotels Restaurant)



Wednesday – September 2nd, 2026

Wednesday, September 2 nd , 2026	Time	Ana Ballroom	Poster Sessions – Sections 2, 3, 5 (Foyer)
		PLENARY SESSION - 2 <i>Chaired by: Horia Iovu and Iuliana Biru</i>	
	09:30 – 10:10	Floriana TUNA (<i>Institut University of Manchester, UK</i>) <i>Metal Organic Frameworks from NO₂ and CO₂ Capture to Quantum Sensing</i>	
	10:10 – 10:50	Eduardo FERNÁNDEZ (<i>Universidad Miguel Hernández de Elche, SPAIN</i>) <i>Closing the Loop: Engineering a Bidirectional Interface with the Visual Brain</i>	
	10:50 – 11:10	Coffee Break	
		PLENARY SESSION - 3 <i>Chaired by: Ileana Rau and Stefania Stoleriu</i>	
	11:10 – 11:50	Daniela BERGER (<i>National University of Science and Technology Politehnica, ROMANIA</i>) <i>Design of Advanced Biocomposite Materials based on Functionalized Mesoporous Silica</i>	
	11:50-12:30	Nava SHAKED (<i>School of Multidisciplinary Studies, Holon Institute of Technology, ISRAEL</i>) <i>The impact of cutting-edge AI technologies & dilemmas on our Education Systems</i>	
	13:00 – 14:30	Lunch Break	



Wednesday, September 2 nd , 2026	Time	Room Ana 1 Section 6 Sustainability & Environmental Engineering <i>Chaired by: Eugenia Totu and Constantin Bobirica</i>	Room Ana 2 Section 1 Advanced Strategies in Chemical Engineering & Biotechnology <i>Chaired by: Ovidiu Oprea and Ionut Banu</i>	Poster Sessions – Sections 2, 3, 5 (Foyer)
	14:30 – 14:50	Keynote S6-KN-ID005 Stefan Ioan VOICU <i>Sustainable Polymer Membranes for Water Filtration in the Context of Circular Economy</i>	Keynote S1-KN-ID128 Tănase DOBRE <i>Use of chemical engineering instruments in blood dialysis equipment modelling</i>	
	14:50 – 15:10	Keynote S6-KN-ID008 Daniela Simina STEFAN <i>Using a continuous-flow disinfection method that is friendly to the useful compounds in liquid, food and pharmaceutical products</i>	S1-O-ID012 Daniela GHEORGHE <i>In-silico optimization of a FBR for ethanol production by using several algorithms and operating alternatives</i>	
			S1-O-ID033 Sergiu SIMA <i>Experimental Investigation of CO₂-Rich Phase Behaviour for Carbon Capture from Cement Industry Emissions</i>	
	15:10 – 15:20	S6-O-ID051 Madalina OPREA <i>Sustainable Extraction of Cellulose from Lignocellulosic Waste Substrates: A Platform Approach toward Bio-Based Materials</i>	S1-O-ID034 Diana VISINESCU <i>Cyano-bridged {Ln₂^{III}Fe₂^{III}} molecular squares: synthesis and magneto-structural characterization</i>	
	15:20 – 15:30	S6-O-ID-020 Simona Mariana CALINESCU <i>Determination of Suspected Microplastic Particles in Air Samples from Industrial Areas in Romania</i>	S1-O-ID035 Maria-Gabriela ALEXANDRU <i>Luminescent lanthanide (III)-based single-ion magnets</i>	
	15:30 – 15:40	S6-O-ID-021 Elisa Gabriela BROASCĂ (DUMBRAVĂ) <i>Synthesis of Fe₃O₄/Chitosan Nanoparticles and Their Application for the Photodegradation of Anionic and Cationic Dyes</i>	S1-O-ID040 Ana-Maria BREZOIU <i>Innovative Fruit Wines - Analytical Characterization, Statistical Interpretation and Economic Feasibility</i>	



Wednesday, September 2 nd , 2026	15:40 – 15:50	S6-O-ID024 Valentina-Andreea PETRE <i>Tracking of PFOA in European carp (Cyprinus carpio): Bioaccumulation and Tissues Partitioning</i>	S1-O-ID062 Sabrina STATE (ROSOIU) <i>Multifunctional gels based on bacterial cellulose, natural deep eutectic solvents, and sea buckthorn oil for wound dressing applications</i>	Poster Sessions – Sections 2, 3, 5 (Foyer)
	15:50 – 16:00	S6-O-ID025 Andra-Gabriela ZORCA <i>Development of Water-Soluble Food Packaging from PVA and Mung Bean Hull Agrowaste</i>	S1-O-ID076 Catinca SECUIANU <i>High-Pressure Phase Behaviour Modelling with Cubic Equations of State for Emerging CO₂ Capture and Processing Technologies</i>	
	16:00 – 16:10	S6-O-ID029 Ioana-Antonia CIMPEAN <i>Preliminary Evaluation of Bisphenol A Adsorption onto Microplastics: Key factors and Adsorption Performance</i>	S1-O-ID158 Mohmmad Asif GAWHARI <i>Anticancer and Antimicrobial Properties of Silymarin from Milk Thistle (Silybum marianum): Phytochemical Analysis and Bioactivity Evaluation</i>	
	16:10 – 16:20	S6-O-ID030 Gianina-Gabriela OPREA (HÎRJANU) <i>Lead removal by adsorption onto innovative hybrid mesoporous materials</i>	S1-O-ID170 Adrian V. CRIȘCIU <i>On the parametrisation of the General Cubic Equation of State (GEoS)</i>	
	16:20 – 16:30	S6-O-ID052 Mădălina RĂILEANU <i>Use of modified red mud as an unconventional adsorbent for the removal of chromium from wastewater</i>	S1-O-ID176 Marin GHEORGHE <i>Microactuators for liquids</i>	
	16:30 – 16:40	S6-O-ID056 Sorina COMAN <i>Eco-Friendly Bioadsorbent: A Sustainable Approach to Heavy Metals Removal from Contaminated Wastewater</i>	S1-O-ID183 Simona IONIȚĂ <i>Nitrogen-doped carbon quantum dots synthesis and encapsulation into mesoporous silica nanoparticles</i>	
	16:40 – 17:00	Coffee Break		



Wednesday, September 2 nd , 2026	Time	Room Ana 2 Section 6 Sustainability & Environmental Engineering <i>Chaired by: Simina Stefan and Stefan Voicu</i>	Room Ana 1 Section 4 Nanosciences & Nanotechnology <i>Chaired by: Stefania Stoleriu and Adrian Nicoara</i>	Poster Sessions – Sections 2, 3, 5 (Foyer)
	17:00 – 17:10	S6-O-ID-069 Gabriel Valentin SERBAN <i>Valorization of Lemon Peel-Derived Adsorbents for Methylene Blue Removal from Aqueous Solutions</i>	S4-O-ID009 Mihai FOTU <i>Influence of Lithium and Boron Substitution on the Structural, Mechanical, and Biological Properties of Bioactive Glass-Ceramics</i>	
	17:10 – 17:20	S6-O-ID070 Ramona VANGHELE <i>Physico-Chemical Characterization of Snow Samples as Indicators of Urban Runoff Pollution</i>	S4-O-ID010 Roxana LAVRIC <i>Controlled Fabrication of Multisegmented Nanowires by Template-Assisted Electrodeposition</i>	
	17:20 – 17:30	S6-O-ID071 Georgiana CERNICA <i>Characterization of Sewage Sludge from Municipal and Urban Wastewater Treatment Plants</i>	S4-O-ID011 Ana-Maria-Raluca MUSAT <i>Development of Co-, Cu- and Zn-Substituted Bioactive Glasses: From Powders to Thin Film Coatings</i>	
	17:30 – 17:40	S6-O-ID112 Violeta-Carolina NICULESCU <i>Sustainable Treatment of Food Industry Wastewaters: Valorisation of Biochar from Agriculture Residues</i>	S4-O-ID013 Ştefania CARAMARIN <i>Synthesis and Evaluation of Ag⁺-Doped Ca₃ZrSi₂O₉ Bioceramics for Bone Regeneration Applications</i>	
	17:40 – 17:50	S6-O-ID116 Theodora Paraschiva GHEORGHE <i>Determination, spatial distribution, and health risk assessment of heavy metals and other trace elements in soils from eastern region of Romania</i>	S4-O-ID066 Marta PETRE <i>Atomic-Scale Structural Characterization of Titanium Carbide MXene Synthesized by Etching of Titanium Aluminum Carbide in Acetic Acid Solution</i>	
	17:50 – 18:00	S6-O-ID123 Christof LANZERSTORFER <i>Recycling Stainless Steelmaking Dust: Chemical Composition and Physical Properties</i>	S4-O-ID103 Ionela-Cristina PETCU <i>Electrochemical synthesis of magnetic nanoparticles from deep eutectic solvents and their use in dye adsorption</i>	
	18:00 – 18:10	S6-O-ID125 Carolina CONSTANTIN <i>Analysis of Petroleum Products for Forensic and Environmental Applications</i>	S4-O-ID115 Elena-Theodora MOLDOVEANU <i>Comparative Investigation of 3D Microfluidic Geometries for Controlled Nanostructure Synthesis and Advanced Physicochemical Characterization</i>	



Wednesday, September 2 nd , 2026	18:10 – 18:20	S6-O-ID152 Antoaneta ROMAN <i>Thermochemical Conversion of Cattle Manure: Comparative Evaluation of Pyrolysis and Gasification for Sustainable Resource Recovery</i>	S4-O-ID136 Gabriela- Mădălina OPRICĂ <i>Bio-based Approaches to Functional Materials Using Cellulose Nanofibers and a Sulfated Polysaccharide</i>	Poster Sessions – Sections 2, 3, 5 (Foyer)
	18:20 – 18:30	S6-O-ID181 Loredana VACAREANU <i>Phthalocyanine-based Hybrid Sensitive Coatings for BTX Detection</i>	S4-O-ID137 Catalina-Diana UȘURELU <i>Chemically Modified Nanocellulose Films for Biomedical Applications</i>	
	18:30 – 18:40		S4-O-ID165 Andreea Luiza MIRT <i>Promoting Metabolic Resilience Under Oxygen Deprivation via Magnesium-Modified Bioactive Glass Nanoparticles</i>	



Thursday – September 3rd, 2026

Thursday, September 3 rd , 2026	Time	Ana Ballroom PLENARY SESSION - 4 <i>Chaired by: Oana Parvulescu and Daniela Berger</i>	Poster Sessions – Sections 1, 4, 6 (Foyer)
	09:30 – 10:10	Ewa BULSKA (<i>University of Warsaw, Faculty of Chemistry, Biological and Chemical Research Center, POLAND</i>) <i>Advance mass spectrometry supported by AI, breakthrough or illusion?</i>	
	10:10 – 10:50	Florin OMOTA (<i>Fluor Corporation</i>) <i>Cutting Edge Process Engineering for Energy Transition</i>	
	10:50 – 11:10	Coffee Break	
	Time	Ana Ballroom PLENARY SESSION - 5 <i>Chaired by: Cristina Todasca and Anca Cojocaru</i>	
	11:10 – 11:50	Dan NICULESCU-DUVAZ (<i>Oncodrug Limited, Runcorn, United Kingdom</i>) <i>Exploiting underexplored targets for unmet medical needs: Lysyl oxidase inhibitors for treating fibrosis and cancer</i>	
	11:50 – 12:30	Hua ZHANG (<i>City University of Hong Kong, CHINA</i>) <i>Phase Engineering of Nanomaterials (PEN)</i>	
	13:00 - 14:30	Lunch Break	



Thursday, September 3 rd , 2026	Time	Room Ana 1 Section 2 Bioengineering & Biomedical Technologies* <i>Chaired by: Daniela Ionita and Stefania Stoleriu</i>	Room Ana 2 Section 5 Pharmaceutical Engineering & Food Safety <i>Chaired by: Daniela Istrati and Raluca Stan</i>	Poster Sessions – Sections 1, 4, 6 (Foyer)
	14:30 – 14:50	Keynote S2-KN-ID200 José Javier Serrano Olmedo <i>Abscopal Effect Triggered by Nanoparticle Mediated Hyperhermia. An Opportunity for New Therapeutic Approaches Against Cancer</i>	Keynote S5-KN-ID002 Ivan SAVIĆ <i>Green Isolation and Characterization of Juice Rich in Bioactive Substances from Tubers of Wild Cyclamen (Cyclamen purpurascens Mill.)</i>	
	14:50 – 15:00	S2-O-ID177 Mariana IONIȚĂ <i>Graphene-Enabled Biomaterials for Bone Tissue Engineering and Regenerative Medicine</i>	Keynote S5-KN-ID114 Cristina TODAȘCĂ <i>The impact of incorporating second raw material from Pyrus communis on the nutritional profile of muffin-type food matrices</i>	
	15:00 – 15:10	S2-O-ID142 Irina-Oana LIXANDRU-PETRE <i>Developing a Romanian Dataset for Thyroid Cancer and Radioiodine Therapy</i>		
	15:10 – 15:20	S2-O-ID144 Cornel COBIANU <i>Trends in Non-Invasive Biosensor Technologies for Glucose Detection: From Science to Biomedical Application</i>	Keynote S5-KN-ID127 Anca Daniela RAICIU <i>Enzyme-Loaded Liposomal Platforms Based on Microbial Inulinase: A Nanobiotechnological Approach for Metabolic and Nutritional Health</i>	
	15:20 – 15:30	S2-O-ID143 Jana GHITMAN <i>Guiding Spatiotemporal Gene Therapeutics through Electrospun Fibrous Architectures</i>		
	15:30 – 15:40	S2-O-ID157 Florina Silvia ILIESCU <i>Diclofenac and Cannabidiol combined to potentiate their antibacterial ability</i>	S5-O-ID007 Corina STROE <i>Assessment of Heavy Metal Exposure Through Cereal Consumption Using ICP-MS: A Case of Study from Romania</i>	
	15:40 – 15:50	S2-O-ID164 Alexandru-Ionel CONSTANTIN <i>e-Tattoo Type IoT Thermal Detector for Inflammatory Diseases</i>	S5-O-ID032 Ariana CATANĂ <i>Vortex Microfluidic Reactor with Integrated Temperature Control for Organic Synthesis</i>	

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



Thursday, September 3 rd , 2026	15:50 – 16:00	S2-O-ID166 Gratiela GRADISTEANU PIRCALABIORU Gut Liquid Biopsy as a Next-Generation Diagnostic Platform: From Microbial Signatures to Precision Medicine	S5-O-ID045 Cătălina-Beatrice POTERAȘ A Differential Analysis of the Bioactive Metabolic Constituents and Antioxidant Potential Across Distinct Pomological Vinegar Matrices	Poster Sessions – Sections 1, 4, 6 (Foyer)
	16:00 – 16:10	S2-O-ID168 Amarachi OSI Dual-Reservoir Delivery of Diclofenac Sodium Utilizing 3-Dimensional printed Microneedles Platform from Bimodal PEGDA networks for Effective Actinic Keratosis Therapy	S5-O-ID091 Ionuț MELINTE SEC MALS as a integrated solution for biotherapeutics	
	16:10 – 16:20	S2-O-ID169 Anca ROIBU Visible-Light-Driven Antimicrobial Performance of Au/ZnO Nanostructures via Photothermal and Photocatalytic Mechanisms	S5-O-ID153 Ana-Maria SIMIONESCU Isotopic Fingerprinting of Milk and Dairy Products in Romania- From Raw to Processed Products	
	16:20 – 16:30	S2-O-ID134 Andreea Ioana DINU Designing Polydopamine–POSS Platforms for Osteoporotic Bone Regeneration		
	16:30 – 16:40	S2-O-ID147 Mădălina -Cristina NICOLAE Photocrosslinked polymeric network based on methacrylated gelatin-xanthan gum as potential ink for wound healing		
	16:40 – 16:50	S2-O-ID129 Hanif Goran ORIMI Multicore iron oxide nanoflowers for efficient magnetic hyperthermia: from synthesis to in vitro evaluation		
	16:50 – 17:10	Coffee Break		



Thursday, September 3 rd , 2026	Time	Room Ana 1 Section 2 Bioengineering & Biomedical Technologies <i>Chaired by: Stefan Voicu and Cristian Pirvu</i>	Room Ana 2 Section 3 Green Energy & Chemistry Concepts <i>Chaired by: Daniela Ionita and Ileana Rau</i>	Poster Sessions – Sections 1, 4, 6 (Foyer)
	17:10 – 17:20	S2-O-ID004 Luminita NASTAS <i>Synthesis and Characterization of PCL–PVDF–AgNPs Composites for Peripheral Nerve Regeneration</i>	S3-O-ID110 Ioana MAIOR <i>Synergetic effect of green inhibitor mixture for carbon steel corrosion in acid solutions</i>	
	17:20 – 17:30	S2-O-ID017 Vlad-Iulian CHELMUȘ <i>Bioprocess Development for Total Carotenoid Pigment Production by Rhodotorula rubra ICCF 220 in a Stirred-Tank Bioreactor</i>	S3-O-ID096 Liana ANICAI <i>Electrochemical Fabrication of 1D Bismuth-Based Nanostructures Using Deep Eutectic Solvents as Electrocatalysts for Hydrogen Evolution Reaction</i>	
	17:30 – 17:40	S2-O-ID018 Nicolae GRIGORE <i>CAD-FEA Investigation of Osseointegration and Loading Direction Effects on Dental Implant Stress Distribution</i>	S3-O-ID092 Erdin FEIZULLA <i>Modelling of CaCO₃ fir wood mineralization from laboratory to scale up</i>	
	17:40 – 17:50	S2-O-ID037 Anca-Teodora MORARU (PECHEANU) <i>Mammalian cells adaptation to serum-free conditions – an important step in cell-based vaccines development</i>	S3-O-ID003 Anca M. ROȘCA <i>Microwave-Assisted Extraction of Polyphenols from the Leaves and Flowers of a Native Crataegus Species</i>	
	17:50 – 18:00	S2-O-ID117 Alexandra GINGA <i>In situ generation of metallic nanoparticles in deep eutectic solvents and their incorporation into alginate-based eutectogels</i>	S3-O-ID122 Gabriela ENACHE <i>Corrosion Assessment of AlMg₃ aluminum alloy in the cooling agent from INR TRIGA Research Reactor</i>	
	18:00 – 18:10	S2-O-ID175 Petru EPURE <i>Sequential Detection of Drug Residues from Food Samples Using Electrochemical Aptasensors</i>	S2-O-ID106 Elvin HOGEA <i>Composite Polymeric Electrodes for Green Hydrogen Production</i>	
	18:10 – 18:20	S2-O-ID161 Cosmin-Gabriel PAULIUC <i>Ultrafast-Gelling Multifunctional Organogel for Strain-Sensing Applications</i>	S4-O-ID124 Mihaela-M. POPA <i>Effect of Deposition Time on CuO Thin Films Grown by Spray Pyrolysis</i>	



	18:20 – 18:30	S2-O-ID162 Ioana Maria MARINESCU <i>Silver-Functionalized Nanocellulose/Polyacrylamide Hydrogels as Multifunctional Platforms</i>	S4-O-ID191 Ana-Roxana ȘTEFAN <i>Sustainable Bio-Based Hydrogel Beads for Water Remediation</i>	
	18:30 – 18:40	S2-O-ID187 Adina-Nicoleta TRANDAȘ <i>Breast Phantoms for X-ray Phase-Contrast Imaging: Improving material selection and test geometry optimization for additive manufacturing</i>	S1-O-ID189 Erika GRIGORE <i>3D Printing of Triply Periodic Minimal Surface Structures Using Metal-Modified Resin</i>	

Thursday - September 3rd, 2026

Thursday, September 3 rd , 2026	18:45 – 19:00	Closing Ceremony – Ana Ballroom
	20:00	Gala Dinner (Ana Hotels Restaurant)



Friday – September 4th, 2026

Estimated time
10:00 – 16:00

SOCIAL PROGRAM – BRASOV HISTORICAL CENTRE



POSTER PRESENTATIONS

Section 1 - Advanced Strategies in Chemical Engineering & Biotechnology

Thursday, September 3rd, 2026

Time: 09:00 – 19:00

S1-P-ID028 Ionela Otilia BACIU, **Oana Cristina PÂRVULESCU** (Politehnica Bucharest, Romania), Mihaela TOCIU, Nicoleta CHIRA, Ana-Maria BREZOIU, Alexandra MOCANU, Alina Violeta URSU, *Optimization of Ultrasound-Assisted Extraction of Bioactive Compounds from Sea Buckthorn (*Hippophae rhamnoides* L.) Berries*

S1-P-ID064 Sabrina STATE (ROSOIU), Oana Cristina PÂRVULESCU, Edina RUSEN, Alexandra GINGA, Gabriela TOADER, Aurel DIACON, George-Mădălin DĂNILĂ, **Gabriela ISOPENCU** (Politehnica Bucharest, Romania), Alexandra MOCANU, *Effect of Process Parameters on the Design of Bacterial Cellulose Wound Dressings Functionalized with AgNPs and Propolis*

S1-P-ID072 Mihaela DINU (Politehnica Bucharest, Romania), Auraş-Marius DUMITRU, Petrica IANCU, Gabriela Olimpia ISOPENCU, *Arabica and Robusta Spent Coffee Grounds: Waste Valorization for Circular Economy*

S1-P-ID089 Alin BROASCA (National Institute for Laser, Plasma and Radiation Physics, Solid-State Quantum Electronics Laboratory, ROMANIA), Madalin GRECCULEASA, Flavius VOICU, Cristina GHEORGHE, Stefania HAU, Gabriela CROITORU, Lucian GHEORGHE, *Crystal Growth and Characterization of Incongruent Melting Nd:LaxYySc_{4-x-y}(BO₃)₄ single crystal*

S1-P-ID090 Ionuţ-Alexandru POPA (Politehnica Bucharest, Romania), Tănase DOBRE, *Synthesis of a Novel Adsorbent Material for Volatile Organic Compounds Removal: Mathematical Modeling and Process Dynamics Simulation*

S1-P-ID093 Bianca SIMEDREA (Politehnica Bucharest, Romania), Nicoleta-Oana DEMOSTENE, Iuliana DELEANU, Oana PARVULESCU, Olga SAPUNARU, Tănase DOBRE, *Valorization through models of monitoring polyaromatic compounds from diesel hydrosulfurization*

S1-P-ID104 Nicoleta-Oana DEMOSTENE (Politehnica Bucharest, Romania), Bianca Georgiana SIMEDREA, Petrica IANCU, Oana PÂRVULESCU, Roxana TÎRPAN, Tănase DOBRE, *Separation solutions of active compounds from natural waxes*

S1-P-ID113 Daniela FLOREA (National Institute for Research and Development on Marine Geology and Geoecology – GeoEcoMar, ROMANIA), Dan VASILIU, Vasile LAVRIC, Albert SCRIECIU, Florentina FEDIUC, Florina RĂDULESCU, *Heavy Metal Distribution in Surface Soils from the Moldova Nouă Mining Waste Dump, Romania*

S1-P-ID119 Cristiana Luminiţa GÎJIU (Politehnica Bucharest, Romania), Paula POSTELNICESCU, Raluca ISOPESCU, Daniel DINCULESCU, *Simulation of the thermal process in curing high consistency silicon rubber*

S1-P-ID121 Daniel DINCULESCU (Politehnica Bucharest, Romania), Ali A. ABBAS ALJANABI, Raluca ISOPESCU, Cristiana Luminiţa GÎJIU, Paula POSTELNICESCU, *Intermediate Reheating in Multi-Module Pervaporation of Ethanol–Water Mixtures*

S1-P-ID171 Ana-Maria MANEA-SAGHIN (Politehnica Bucharest, Romania), Petronela GHEORGHE, *Spectroscopic evaluation of various bio derived extracts*

S1-P-ID182 George-Alin BĂLAN (Politehnica Bucharest, Romania), Luiza MIRT, Ludmila MOTELICA, Roxana Doina TRUSCA, Denisa FICAI, Ovidiu Cristian OPREA, Anton FICAI, *Nanostructured Silica Aerogels: Synthesis, Structural Characterization and Advanced Functional Perspectives*

S1-P-ID184 Mihaela DEACONU, Andreea MIRICĂ, Iulia Ş. VOICU, Alin G. GHEORGHE, Bogdan Ş. VASILE, **Cristian MATEI** (Politehnica Bucharest, Romania), Dana STAN, Daniela BERGER, *Composites Containing AuAg Nanoparticles and Functionalized Silica to Develop Lateral Flow Immunoassays for Detection of Cardiac Troponin*

S1-P-ID196 Alexandra-Gabriela HODODI, Romuald GYÖRGY, **Ionuţ BANU** (Politehnica Bucharest, Romania), *Multi-Objective Optimization of a Multi-Bed Adiabatic Reactor with Interstage Cooling for Direct Dimethyl Ether Synthesis from Syngas*



POSTER PRESENTATIONS

Section 2 - Bioengineering & Biomedical Technologies

Wednesday, September 2nd, 2026

Time: 09:00 – 19:00

S2-P-ID053 Alina Florentina VLADU (The National Research and Development Institute for Textiles and Leather), Mădălina Georgiana ALBU KAYA, Anton FICAI, *Multifunctional Collagen–Hydroxyapatite Freeze-Dried Scaffolds Incorporating Doxorubicin and Caffeic Acid for Osteosarcoma Therapy and Bone Regeneration*

S2-P-ID082 Maria-Steliana CÂRLAN (Politehnica Bucharest, Romania), Florentina GOLGOVICI, Valeriu Cristian PÎRVU, *Natural Deep Eutectic Solvent-Based Electrochemical Synthesis of Polypyrrole–Amoxicillin Films on CoCr Alloy*

S2-P-ID086 Mariana PRODANA (Politehnica Bucharest, Romania), Daniela IONITA, Cristina BADEA, Geanina MIHAI, *Multifunctional Collagen-based Nanocomposites Reinforced with Essential Oil-Loaded MWCNTs for Biomedical Applications*

S2-P-ID087 Daniela IONITA (Politehnica Bucharest, Romania), Camelia UNGUREANU, Marta PETRE, Aida PANTAZI, Mircea LAPAU, Marius ENACHESCU, *Characterization of Plasma-Activated Water (PAW) and Its Potential in Medical Engineering Applications: A Biological Perspective*

S2-P-ID088 Marius ENACHESCU (Politehnica Bucharest, Romania), Mariana PRODANA, Manuela-Elena VOICU, Daniela IONITA, Cristina BADEA, Corina SANDULESCU, Valeriu FILIP, *TiO₂ nanotubes grown on TiNb substrates as a medical engineering platform for local, controlled cephalosporin delivery*

S2-P-ID101 Andreea-Gabriela POPESCU (Politehnica Bucharest, Romania), Florentina GOLGOVICI, Cristina DUMITRIU, Cristian PIRVU, *Molecularly Imprinted Polypyrrole Sensors Electro synthesized from NADES for Amoxicillin Detection*

S2-P-ID105 Alexandra CONSTANTINESCU (Politehnica Bucharest, Romania), Ștefania-Diana BOLDEANU, Cristian PIRVU, *Machine Learning-Assisted Electrochemical Impedance Spectroscopy Analysis for Sensitive D-Fructose Detection Using CQDs Based Architectures*

S2-P-ID118 Daniel-Costinel PETRE (Politehnica Bucharest, Romania), Horia CONSTANTIN, Ana-Maria DOBRE, Stefan Ioan VOICU, Eugenia Eftimie TOTU, *Dielectric characterization of bioactive hyaluronic acid -based polymeric matrices for controlled-release applications.*

S2-P-ID174 Adriana ZAINEA (Politehnica Bucharest, Romania), Elena Iuliana BIRU, Horia IOVU, *Development of WPMY-1 spheroids to mimic prostate acinar-like structures*

S2-P-ID130 Marta PETRE (Politehnica Bucharest, Romania), Mircea LAPAU, Andrei INDOILA, Iulian BOERASU, Vlad STANCILA, Oana LAZAR, Marius ENACHESCU, Veronique de ROOIJ-LOHMANN, Shriparna MUKHERJEE, Alessandro TROGLIA, Rik JONCKHEERE, *FIB–STEM at the Chemistry–Physics–Technology Interface: Degradation Mechanisms in Extreme Ultraviolet Multilayer Systems*

S2-P-ID077 Cristina-Andreea JALBĂ (Politehnica Bucharest, Romania), Izabela-Cristina STANCU, Elena OLĂREȚ, Andrada SERAFIM, Cristina BUSUIOC, Sorina DINESCU, Lea SLEIMAN, *Printable Gellan Gum-based Biocomposites for Tissue Replacement and Regeneration*

S2-P-ID154 Laura-Elena ANDREI (Politehnica Bucharest, Romania), Elena RADU, Gratiela GRĂDIȘTEANU-PÎRCĂLĂBIORU, Ciprian ILIESCU, Bianca Maria TIHĂUAN, *Cannabidiol as a Therapeutic Adjuvant: Effect on Daptomycin Efficacy and Mitigating Resistance in Methicillin-Resistant Staphylococcus aureus (MRSA)*

S2-P-ID145 Feth Eddine BOUKHEMACHA (Politehnica Bucharest, Romania), Laura ANDREI, Elena RADU, Horia IOVU, Jana GHITMAN, *How Does Polymer Chemistry Shape Gene Delivery Performance? A Comparative Study of PBAE/DNA, PEI/DNA, and CS/DNA Polyplexes*

S2-P-ID151 Mihaela CILTEA-UDRESCU (Politehnica Bucharest, Romania), Jana GHITMAN, Gratiela GRADISTEANU, Alexandru VLAICU, Andrada SERAFIM, Bogdan VASILE, Horia IOVU, *3D-Printed Multifunctional Hydrogel Dressings for Infected Wound Therapy*

S2-P-ID167 Bianca ADIACONITA (IMT Bucharest, Romania), Eugen CHIRIAC, Tiberiu BURINARU, Catalin MARCULESCU, Oana BRINCOVEANU, Cristina PACHIU, Marioara AVRAM, *Innovative Dual-Mode Probing of Vertical Graphene Interfaces for Real-Time DNA Sensing*

S2-P-ID188 Mihai PĂDURARU (Politehnica Bucharest, Romania), Elena-Iuliana BÎRU, Horia IOVU, *Development and Characterization of Guar Gum/Pectin Hydrogels with Self-Healing Behavior for Potential Wound Treatment Applications*



POSTER PRESENTATIONS

Section 3 - Green Energy & Chemistry Concepts

Wednesday, September 2nd, 2026

Time: 09:00 – 19:00

S3-P-ID080 Geanina MIHAI, **Liana ANICAI** (Center of Surface Science and Nanotechnology, Politehnica Bucharest, Romania), Anca COJOCARU, Marius ENACHESCU, Ayrat DIMIEV, *Synthesis of Cu-Pt/Reduced Graphene Oxide Composites with Electrocatalytic Activity for Hydrogen Evolution Reaction during Water Electrolysis*

S3-P-ID097 Georgiana Irina VIZITIU (**BERCEA**) (Politehnica Bucharest, Romania, Ovidius University from Constanta, Romania), Oana Cristina PÂRVULESCU, Vasile LAVRIC, Alina SOCEANU, Simona DOBRINAȘ, Nicoleta MATEI, Semaghiul BIRGHILA, *Multivariate Analysis of Heavy Metal Concentrations in Grape Pomace Resulting from Wine Production in the Dobrogea Area*

S3-P-ID098 Adina Ionuta GAVRILA (Politehnica Bucharest, Romania), Mihaela BUMBARU DANDES, Adrian TRIFAN, Petre CHIPURICI, Tiberiu Emilian ZOTA, *Ultrasound-Assisted Extraction of Antioxidant Bioactive Compounds from Azadirachta indica Leaves*

S3-P-ID100 Christina ZALARU (University of Bucharest, Romania), Florea DUMITRASCU, Constantin DRAGHICI, Maria MARINESCU, Rodica TATIA, Claudia-Valentina POPA, Daria POPOIU, Alexia LASCU, Georgiana MANASESCU, Andrei PREOTU, *Design and Synthesis of New Biologically Active Pyrazole Derivatives*

S3-P-ID102 Anca COJOCARU (Politehnica Bucharest, Romania), Ioana MAIOR, Ioana Alina CIOBOTARU, Gabriela Elena BADEA, *Evaluation of Different Plant extracts on the corrosion of carbon steel in neutral media*

S3-P-ID107 Oana CIOCIRLAN (Politehnica Bucharest, Romania), Bianca Ioana SIMA, Ludmila MOTELICĂ, Matei D. RAICOPOL, Ovidiu-Cristian OPREA, Sergiu SIMA, Adrian Ionut NICOARA, *Investigation of Cellulose Dissolution in Acidic Natural Deep Eutectic Solvents*

S3-P-ID131 Laura MIU (Politehnica Bucharest, Romania; "C. D. Nenitzescu" Institute of Organic and Supramolecular Chemistry of the Romanian Academy), Florina TEODORESCU, Raluca STAN, *Development of Linseed Oil-Based Materials with Photoprotective Properties*

S3-P-ID133 Vasilica-Alisa ARUȘ (University of Bacau, Romania), Nicoleta PLATON, Oana Cristina PÂRVULESCU, *Functional Goat Yogurt with Red Grape Seed Powder*

S3-P-ID138 Eric-Cristian CIRICĂ (Politehnica Bucharest, Romania), Ecaterina ANDRONESCU, Anton FICAI, Ovidiu OPREA, Lucian-Toma CIOCAN, *Tailoring the Surface Properties of Nanoparticles to Optimize Antimicrobial Efficiency in Oral Environments*

S3-P-ID140 Christina ZALARU, Florea DUMITRASCU, Constantin DRAGHICI, Maria MARINESCU, Rodica TATIA, Claudia-Valentina POPA, **Lavinia ZAMA** (University of Bucharest, Romania), Diana IVAN, Andreea GAITAN, Denisa IORDACHESCU, Alexandra GOIDA, *Design and synthesis of new biologically active hybrid derivatives*

S3-P-ID186 Cristian-Alexandru DOANA (Politehnica Bucharest, Romania), Ioana-Alina BENGHA (CIOBOTARU), Anca COJOCARU, Ioana MAIOR, *The influence of the operating temperature on the performances of lithium-ion rechargeable batteries*

S3-P-ID194 Raluca-Ioana JALBĂ (Politehnica Bucharest, Romania), Bogdan JURCA, Isabela MAN, Vasile PÂRVULESCU *Mechanistic investigations of CO₂ reduction on bi-dimension metal-carbon catalysts: experimental kinetics and theoretical modelling*

S3-P-ID015 Cosmin Ion ANECHITEI (Politehnica Bucharest, Romania), Constantin VOINITCHI, Alina Ioana BADANOIU, *Evaluating the Impact of Recycled Concrete Aggregate Treatment Techniques on the main Properties of Portland Cement Concrete*



POSTER PRESENTATIONS

Section 4 - Nanosciences & Nanotechnology

Thursday, September 3rd, 2026

Time: 09:00 – 19:00

S4-P-ID031 Dragoș-Gabriel NEGREANU (Politehnica Bucharest, Romania), Georgeta VOICU, Cristina-Daniela GHIȚULICĂ, Andreia CUCURUZ, Cornelia ILIE, Adrian-Ionuț NICOARĂ, Roxana-Doina TRUȘCĂ, *Towards Stimuli-Responsive Multiferroic Scaffolds: Lead-Free Nanofibers for Magnetically Assisted Therapeutic Effects*

S4-P-ID084 Marcela-Elisabeta BARBINTA-PATRASCU (University of Bucharest), Cornelia NICHITA, Georgiana-Alexandra GRIGORE, Diana-Mădălina GĂBOREANU, Ariana HUDITA, Adrian BOBICĂ, Ioan STAMATIN, Mariana Carmen CHIFIRIUC, *Bioperformance of Biohybrids Based on Phyto-Nano-Silver and Biomimetic Membranes*

S4-P-ID108 Ioana-Sandra SERDARU (Politehnica Bucharest, Romania), Nicoleta-Laura DRAGOMIR, Cristina-Daniela GHIȚULICĂ, Adrian-Ionuț NICOARĂ, Georgeta VOICU, Andreia CUCURUZ, Florin IORDACHE, *Synthesis and characterization of gallium-doped β -tricalcium phosphate obtained by the coprecipitation method with potential applications in regenerative medicine*

S4-P-ID109 Laura-Nicoleta DRAGOMIR (Politehnica Bucharest, Romania), Ana-Maria Cristiana DUMITRESCU, Stefania STOLERIU, Georgeta VOICU, *Mineralization Effect on Doped and Co-Doped β -Calcium Pyrophosphate Scaffolds*

S4-P-ID132 Ioana-Cristina DOBRIȚA (Politehnica Bucharest, Romania), Andrei-Stefan POPA, Mădălina -Georgiana ALBU KAYA, Ștefania STOLERIU, Izabela-Cristina STANCU, Georgeta VOICU, *Ba-Doped Akermanite-Enriched Collagen/Hyaluronic Acid Freeze-Dried Hybrid Scaffolds for Bone Tissue Engineering*

S4-P-ID139 Andreea Gabriela BRATU (Politehnica Bucharest, Romania), Ana Maria Gianina REHNER (COSTACHE), Alexandra Cătălina BÎRCĂ, Adelina-Gabriela NICULESCU, Alina Maria HOLBAN, Ariana HUDIȚĂ, Florentina Cornelia BICLESANU, Paul Cătălin

BALAURE, Anna Maria PANGICĂ, Alexandru Mihai GRUMEZESCU, George-Alexandru CROITORU, *Zinc Stannate-based nanocomposites for maxillary bone defects additives*

S4-P-ID155 Sorana Elena LAZĂR (Politehnica Bucharest, Romania), Irina ATKINSON, Roxana TRUȘCĂ, Dana CULIȚĂ, Alexandru Mihai GRUMEZESCU, *Effect of Magnesium Incorporation on the Properties of Mesoporous Sol-Gel Derived SiO_2 -CaO- P_2O_5 Bioactive Glasses for Tissue Engineering Scaffolds*

S4-P-ID180 Joanna KISAŁA (University of Rzeszow, Rzeszow, POLAND), Joanna WOJTAS, Renata WOJNAROWSKA-NOWAK, Dana POPESCU, Yaroslav BOBITSKI, Viktor ZINCHENKO, *Composition-Controlled Photocatalytic and Antibacterial Performance of ZnO-ZnS Nanocomposite*

S4-P-ID193 Cristina CHIRCOV, George Alexandru DRUMEA, Adrian Ionuț NICOARĂ, **Cornelia-Ioana ILIE** (POLITEHNICA Bucharest, Romania), *Nanostructured coatings based on magnetite and ascorbic acid for implants*

S4-P-ID195 Madalina CERCEL (National Institute of Materials Physics; University of Bucharest, Romania), Andreea ANDRONE, Ion SMARANDA, Adam LORINCZI, Catalin NEGRILA, Mihaela BAIBARAC, *Exfoliation of MoS_2 and WS_2 microparticles into nanosheets in the presence of reduced graphene oxide*

S4-P-ID197 Ștefan-Alexandru GAFTONIANU (POLITEHNICA Bucharest, Romania), Carmen Mariana CHIFIRIUC, Ecaterina ANDRONESCU *Engineered Exosomes for Aging-Associated Chronic Wounds: Targeting Cellular Senescence and Restoring Regenerative Signaling*

S4-P-ID199 Ștefan -Alexandru GAFTONIANU (POLITEHNICA Bucharest, Romania), Carmen Mariana CHIFIRIUC, Ecaterina ANDRONESCU *Theranostic Carbon Quantum Dots for Aging-Associated Chronic Wounds: From Microenvironment Sensing to Phase-Adaptive Nanotherapy*



POSTER PRESENTATIONS

Section 5 - Pharmaceutical Engineering & Food Safety

Wednesday, September 2nd, 2026

Time: 09:00 – 19:00

S5-P-ID006 Raluca STAN (Politehnica Bucharest, Romania), Maria-Raluca CRINGASU, Brîndusa BALANUCA, Andrei SLABU, Cristina OTT, *Advanced vegetable oil-derived polymeric nanospheres for drug delivery applications*

S5-P-ID016 Claudia-Valentina POPA ("Cantacuzino" National Military Medical Institute for Research and Development, Bucharest, Romania/ University of Bucharest, Romania), Cristina-Anca SECARA, Vladimir SUHAIANU, Speranta RADU, Lucia-Elena IONESCU, *Determination of Plasma Acetylcholinesterase and Butyrylcholinesterase Activity in Rats Exposed to Paraoxon*

S5-P-ID026 Ludmila MOTELICA, Ovidiu-Cristian OPREA (POLITEHNICA Bucharest, Romania/ Academy of Romanian Scientists, Bucharest, Romania), Anton FICAI, Roxana Doina TRUSCA, Denisa FICAI, George PELIN, Carmen CURUTIU *Antibacterial Packaging Based on Carboxymethyl Cellulose with Zinc Oxide and Cinnamon Essential Oil for Bread*

S5-P-ID027 Ludmila MOTELICA (Politehnica Bucharest, Romania), Ovidiu-Cristian OPREA, Anton FICAI, Roxana Doina TRUSCA, Denisa FICAI, Catalina-Elena CONSTANTIN, Alina Maria HOLBAN, Gabriel MUSTĂŢEA, Elena Loredana CIRSTOIU (UNGUREANU), Carmen CURUTIU *Antibacterial Packaging for Cheese Based on Carboxymethyl Cellulose Composite with Zinc Oxide and Thyme Essential Oil*

S5-P-ID039 Cristina-Elena STAVARACHE (POLITEHNICA Bucharest, Romania/ Costin D. Nenitescu" Institute of Organic and Supramolecular Chemistry, Bucharest, Romania), Alin-Andrei BARNA, Oana-Cristina PÂRVULESCU, Nicoleta-Aurelia CHIRA, Mihaela TOCIU, Aurelia BRATU, Mihaela-Liliana MIHALACHE, *Box-Behnken Optimization of Butyric Fraction Signal Quality in Dairy Fat ¹³C-NMR Spectra*

S5-P-ID041 Nicoleta-Aurelia CHIRA (Politehnica Bucharest, Romania), Mihaela TOCIU, Aurelia BRATU, Mihaela-Liliana MIHALACHE, Cristina-Elena STAVARACHE *From*

Chemometric Equations to Neural Networks: ¹³C-NMR-Driven ANN Models for Assessing the Butyric Fraction in Dairy Fats

S5-P-ID042 Mihaela-Liliana MIHALACHE (Politehnica Bucharest, Romania), Nicoleta-Aurelia CHIRA, Mihaela TOCIU, Aurelia BRATU, Cristina-Elena STAVARACHE, *¹³C-NMR Chemometric Determination of Fatty Acid Profiles in Fats and Oils*

S5-P-ID043 Aurelia BRATU (Politehnica Bucharest, Romania), Nicoleta-Aurelia CHIRA, Mihaela TOCIU, Mihaela-Liliana MIHALACHE, Cristina-Elena STAVARACHE, *¹H-NMR Driven Classification Models for Detecting Non-Dairy Fats in Dairy Products*

S5-P-ID047 Mihaela TOCIU (Politehnica Bucharest, Romania), Nicoleta-Aurelia CHIRA, Silvia DINICĂ, Aurelia BRATU, Mihaela-Liliana MIHALACHE, Cristina-Elena STAVARACHE, *From Dairy Fat to Healthier Cheese Analogues: Insights from NMR Spectroscopy, Nutritional Indices and Physicochemical Properties*

S5-P-ID058 Brîndușa BALANUCA (Politehnica Bucharest, Romania), Cristina OTT, Raluca STAN, Mihaela TOCIU, Alina MOROȘAN, *Recovering Bioactive Compounds from Eucalyptus globulus Leaves Through a More Sustainable Extraction*

S5-P-ID059 Ioana LĂCĂTUȘU, Mihaela BACALUM, Ovidiu OPREA, Mihaela NEAGU, Nicoleta BADEA (Politehnica Bucharest, Romania), *Polysaccharide Decorated – Lipid Nanocarriers for Herbal Actives Delivery*

S5-P-ID060 Nicoleta BADEA, Robert ȚINCU, Mihaela BACALUM, Ovidiu OPREA, Mihaela NEAGU, Ioana LĂCĂTUȘU (Politehnica Bucharest, Romania), *Functional Hybrid Nanocarriers as appropriate hosts for accommodating phytochemicals with skin wound-healing potential*

S5-P-ID061 Robert TINCUI (Politehnica Bucharest, Romania), Nicoleta BADEA, Denisa UDEANU, Mihaela NEAGU, Ioana LĂCĂTUȘU, *The comparative in vitro bioactivities of several conventional and hybrid lipid nanocarriers conditioned as topical formulations*



S5-P-ID065 Alina MOROSAN (Politehnica Bucharest, Romania), Daniela ISTRATI, Monica-Ilinca ARDELEAN, Dan Eduard MIHĂIESCU, Alexandru Mihai GRUMEZESCU, *Surface-Engineered Sulfur Nanoparticles for Antimicrobial Nanocoatings via Sonochemical Polysulfide*

S5-P-ID068 Elena-Christen CREANGĂ (POLITEHNICA Bucharest, Romania / National Institute for Research and Development in Microtechnologies, Bucharest, Romania), Alexia-Ioana RADU, Cătălin MĂRCULESCU, Cristina OTT, Mihaela TOCIU, Raluca STAN, *Microfluidic versus Conventional Synthesis of Antioxidant Lipidic Drug Carriers*

S5-P-ID073 Ciprian-Victor FLOREA (Politehnica Bucharest, Romania), Robert CREȚU, Alexandru TOMPA, Dragoș CONDURACHE, Luisa PILAN, Matei D. RAICOPOL, *Thiosemicarbazone based turn-off fluorescent chemosensor for mercury (II) ions detection*

S5-P-ID081 Luminita PAȚĂ ("Ovidius" University of Constanta, Constanta, Romania), Ticuța NEGREANU-PÎRJOL, Bogdan-Ștefan NEGREANU-PÎRJOL, Dan Răzvan POPOVICIU, Natalia ROȘOIU, *Preliminary Studies on the Phytochemical Profile and Antioxidant Potential of Romanian Bitter Cherry (Prunus avium var. sylvestris Ser.) Fluid Extracts*

S5-P-ID120 Nadia PAUN (National Research and Development Institute for Cryogenic and Isotopic Technologies, Valcea, Valcea, Romania), Ramona Ionela ZGAVAROGEA, Violeta-Carolina NICULESCU, Ana Maria NASTURE, Marius-Gheorghe MIRICIOIU, Diana-Ionela POPESCU, *Lithium as a Nutritionally Relevant Trace Element in Animal-Derived Foods: An ICP-OES Multielement Study*

S5-P-ID159 Mihaela NEAGU (Hofigal Export-Import S.A, Bucharest, Romania), Cristina-Mihaela LUNTRARU, Mihaela PRISACARI, Elena-Daiana BĂLĂNICĂ, Justinian-Andrei TOMESCU, Sevinci POP, *Physicochemical and Functional Characterization of Vegetable and Essential Oils for Phytotherapeutic Applications*

S5-P-ID0160 Mihaela NEAGU, Cristina-Mihaela LUNTRARU, **Mihaela PRISACARI** (Hofigal Export-Import S.A, Bucharest, Romania), Elena-Daiana BĂLĂNICĂ, Justinian-Andrei TOMESCU, Ioana LĂCĂTUȘU, Nicoleta BADEA, *Advanced physicochemical evaluation of lipid formulations with bioactive extracts: antioxidant potential and metabolic stability*

S5-P-ID163 Diana Ionela POPESCU (STEGARUȘ) (National Research and Development Institute for Cryogenic and Isotopic Technologies, Valcea, Valcea, Romania), Violeta-Carolina NICULESCU, Oana Romina BOTORAN, *Application of the Hazard Index Approach for Evaluating Cumulative Pesticide Exposure through Fruit and Vegetable Consumption*

S5-P-ID179 Monica RADULY (National Institute for Research & Development in Chemistry and Petrochemistry, Bucharest, Romania), Valentin RADITOIU, Alina RADITOIU, Iuliana RAUT, Cristian-Andi NICOLAE, *Development and Characterization of Chitosan Microparticles Loaded with Red Clover Polyphenols for Antioxidant and Antimicrobial Applications*

S5-P-ID192 Alina-Marieta SIMION (Politehnica Bucharest, Romania), Florea DUMITRAȘCU, Constantin DRĂGHICI, Marcel Mirel POPA, Sergiu SHOVA, *Solvent free and Catalyst free Decarboxylation of Pyridazinone Carboxylic Acids*

S5-P-ID198 Bogdan PURCĂREANU (Biotehnos SA/Politehnica Bucharest, Romania) Daniela ISTRATI, Alina MOROȘAN, Daniela BLĂGOI, Veronica DRUMEA, Mihai Alexandru FLOREA, Dan Eduard MIHĂIESCU, *Sustained Release of Achillea Millefolium Essential Oil Microcapsules from an Ambient-Dried Silica Aerogel Matrix in Simulated Gastric Fluid*



POSTER PRESENTATIONS

Section 6 - Sustainability & Environmental Engineering

Thursday, September 3rd, 2026

Time: 09:00 – 19:00

S6-P-ID001 Loredana Gabriela Popescu (Braşov) (Politehnica Bucharest, Romania), Oanamari Daniela Orbuleţ, Maria Izabela Pascariu, *Iron-Modified Rice Husk for Pb²⁺ Removal from Contaminated Water: Adsorption Performance*

S6-P-ID014 Roxana Sânziana JIDVEIAN (Politehnica Bucharest, Romania), Ioana DIACONU, Oana Cristina PÂRVULESCU, Petrica IANCU, *Removal of pharmaceuticals from wastewater with bulk liquid membranes*

S6-P-ID019 Cristina MODROGAN (Politehnica Bucharest, Romania), Costin-Liviu BANICĂ, Simona CĂPRĂRESCU, Magdalena BOŞOMOIU, Oanamari Daniela ORBULEŢ, Anette Madelene DĂNCILĂ, *Functionalized waste adsorbent for high-efficiency pesticide removal from wastewater*

S6-P-ID023 Elisa Gabriela BROASCA (DUMBRAVA) (Politehnica Bucharest, Romania), Luiza Izabela TODERAŞCU, Iulia ANTOHE, Cristian ZAGAR, Gianina POPESCU-PELIN, Andrei STOCHIOIU, *Development and Characterization of MgPc: C Chemiresistive Sensor for Hydrocarbon Gas Detection at Room Temperature*

S6-P-ID036 Daniela ION (Politehnica Bucharest, Romania), Ana LUNTRARU, Florentina Laura CHIRIAC, Ioana Alexandra IONESCU, Mihai STEFANESCU, Mihai NIŢĂ-LAZĂR, *Valorization of food waste into adsorbents for wastewater depollution from pharmaceutical compounds*

S6-P-ID038 Florentina Laura CHIRIAC (National Institute for Research and Development for Industrial Ecology—INCD ECOIND), Iuliana PAUN, Florinela PIRVU, Vasile Ion IANCU, Victor Constantin COJOCARU, *Integrated LC–MS/MS Workflow for Tracking Organophosphate Ester Contaminants Across Marine Abiotic and Biotic Compartments*

S6-P-ID044 Anamaria (ILIE) NICULESCU (Ovidius University Constanta, Constanta, ROMÂNIA, Politehnica Bucharest, Romania), Tănase DOBRE, Oana PARVULESCU, Timur-Vasile CHIŞ, Simona DOBRINAŞ, Semaghiul BIRGHILA, Nicoleta MATEI, Roxana

Doiniţa TÎRPAN, *Evaluation of Physicochemical Parameters on Soils in the Dobrogea Region*

S6-P-ID046 Liliana BOBIRICĂ (Politehnica Bucharest, Romania), Cristina ORBECI, Giovanina-Iuliana IONICĂ, Magdalena BOŞOMOIU, Constantin BOBIRICĂ, *Nonlinear Kinetic Modeling and Mechanistic Investigation of Chlorophenol Photocatalytic Degradation in Aqueous Media*

S6-P-ID050 Marilena – Valentina STINGA (National Research and Development Institute for Industrial Ecology Ecoind), Florentina Laura CHIRIAC, Ioana – Antonia CIMPEAN, Iuliana PAUN, *Green technology for water softening: The adsorption of lemon peel*

S6-P-ID054 Victor Constantin COJOCARU (Politehnica Bucharest, Romania, National Institute for Research and Development for Industrial Ecology—INCD ECOIND), Catalina STOICA, Florentina Laura CHIRIAC, Mihai NITA-LAZAR, *Biodegradation Potential of Long-Chain PFAS by Pure Bacterial Strains Monitored through Growth Inhibition and LC–MS/MS Analysis*

S6-P-ID055 Giovanina-Iuliana IONICĂ (Politehnica Bucharest, Romania), Cristina ORBECI, Liliana BOBIRICĂ, Constantin BOBIRICĂ, *Assessment of TiO₂-Functionalized Fiberglass as a Photocatalytic Material for Azithromycin Removal from Wastewater*

S6-P-ID057 Irina CEBAN (Institute of Chemistry of Moldova State University), Crina VICOL, Eugenia MORARU, Mihaela BUGA, *Surface Characterization of Activated Carbons Obtained from Wastes*

S6-P-ID063 Camelia UNGUREANU (Politehnica Bucharest, Romania), Daniela Simina STEFAN, Ana Iulia STEFAN, Mircea STEFAN, *Chromogenic Media as Rapid Tools for Microbial Surveillance in Urban Wastewater Treatment Systems*

S6-P-ID074 Magdalena DANCIU (Politehnica Bucharest, Romania), Cristina MODROGAN, Oanamari Daniela ORBULEŢ, Gabriela Geanina VASILE, Theodora-



Paraschiva GHEORGHE, *Adsorption Equilibrium and Kinetics of Triclocarban onto a Hyper-Crosslinked Polyaramide Polymer (KG239)*

S6-P-ID075 Adriana MOANȚĂ (CEPROCIM SA), Ionela PETRE, Carmen MUNTEANU, Jenica PACEAGIU, Lia Mara DIȚU, Anda Maria BAROI, Nicoleta VLAD, *Sustainable antimicrobial restoration materials for built heritage conservation using plant extracts and green-synthesized nanoparticles*

S6-P-ID078 Cristina ORBECI (Politehnica Bucharest, Romania), Liliana BOBIRICĂ, Giovanina-Iuliana IONICĂ, Constantin BOBIRICĂ, *Efficiency Assessment of Erythromycin Removal from Aqueous Effluents Using an Advanced Treatment Method*

S6-P-ID079 Ioana-Jenica SPÎNU (Politehnica Bucharest, Romania), Cristina ORBECI, Carolina CONSTANTIN, Annette Madelene DĂNCILĂ, *Water Quality Monitoring from S.C. Urban S.A Slobozia*

S6-P-ID083 Roberta MIFTODE (Politehnica Bucharest, Romania), Mihaela MÎNDROIU, *Coupling Wastewater Remediation with Green Hydrogen Production in a Bifunctional Photoelectrocatalytic Cell*

S6-P-ID085 Loredana-Vasilica POSTOLACHE ("Gheorghe Asachi" Technical University of Iasi-Romania), Gabriela SOREANU, Igor CRETESCU Gabriela LISA, *Assessment of the impact of biomass residues on the energy potential of waste mixtures for co-incineration*

S6-P-ID094 Crina VICOL (Institute of Chemistry, Moldova State University), Irina CEBAN, *Antioxidant Properties of Carbonaceous Adsorbents Derived from Local Nut Shell Waste*

S6-P-ID095 Ileana RĂU (Politehnica Bucharest, Romania), Eduard Ștefan NICA, Cristina ORBECI, Verginica SCHRÖDER *Assessment of the Biodegradation State of Religious Objects*

S6-P-ID099 Simona POPESCU (Politehnica Bucharest, Romania), Angela Gabriela PAUN, Roberta MIFTODE, Mihaela MINDROIU and Cristina DUMITRIU, *Novel Reduced TiO₂ Nanotubes Photocatalyst Modified with Polydopamine and Silk Fibroin Quantum Dots: From Synthesis to Photocatalytic Degradation*

S6-P-ID111 Constantin BOBIRICĂ (Politehnica Bucharest, Romania), Cezar DIMA, Cristina ORBECI, Liliana BOBIRICĂ, Giovanina – Iuliana IONICĂ, *Valorization of Construction and Demolition Waste in Flame-Retardant Applications*

S6-P-ID141 Anca Maria PATIC, Andreea Ozana GHEORGHUIU (Politehnica Bucharest, Romania), Annette Madelene DĂNCILĂ, Oanamari Daniela ORBULEȚ, Cristina MODROGAN, Simina Daniela ȘTEFAN, *Characterization of modified natural adsorbents used for CO₂ capture from waste gases*

S6-P-ID156 Cristina FIRINCĂ (National Institute for Research and Development in Chemistry and Petrochemistry -ICECHIM, Bucharest, ROMANIA, University of Bucharest), Adrian CEPLEANU-PASCU, Lucian ZAMFIR, Mariana CONSTANTIN, Iuliana RĂUT, Cătălina GÎFU, Luiza CAPRĂ, Georgeta IVAN, Mihaela DONI, Tatiana ȘESAN, Ana-Maria GURBAN, *Integrating Myco-Phytoextraction and Electrochemical Sensing Tools for Dynamic Assessment of Soil Heavy Metal Remediation*

S6-P-ID178 Vasilica VASILE (INCERC Bucharest, "URBAN - INCERC"), Irina POPA, Cristian PETCU, *Indoor Radon levels in three types of urban spaces – a comparative analys*

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