

# **International Conference "Students for Students"**

## **XXth edition SCHEDULE**

### **Wednesday - the 17<sup>th</sup> of April 2024**

10:00 - Official Opening

10:30 - Plenary Session: **Dr. Dragoş HORVATH: Problem Solving**

11:30 - Coffee Break

11:50 - Scientific Session: Chemical Engineering

11:50 - *Prediction of Wastewater Treatment Plant Effluent Concentrations Using Artificial Neural Networks* - **Mălina POCLID**

12:05 - *A Simulation Tool for the Dynamics of Water Flow and Water Depth along a Reach of Someşul Mic River (RO)* - **Amalia PRODAN**

12:20 - *Indium Tin Oxide Precursors Synthesis: Temperature Control* - **Henrietta-Beata NAGY**

12:35 - *Real-time Monitoring of Chemical Processes with IOT-Based Equipment* - **Ákos-Sándor MOLNÁR**

12:50 - Lunch Break

13:50 - Scientific Session: Chemistry

13:50 - *Thermal Reduced Graphene Oxide Obtained as 3D Membranes with Controlled Physico-Chemical Properties* - **Adriana-Flavia LUPEA**

14:05 - *Bandgap Engineering by Gallium and Tin Codoping in Indium Oxide for Optoelectronic Applications* - **Cristian COCIŞ-VAGNER**

14:20 - *The Influence of Environmental Factors on FRP (Fiber Reinforced Polymers) Properties* - **Octavian GOIAN and Marius MARCIUC**

14:35 - *Electrodeposition of a Cobalt Oxide Film for the Electrocatalytic Oxidation of Water* - **Radoslav IVANOV**

14:50 - Coffee Break

15:00 - Scientific Session: Chemistry

15:00 - *OH-initiated Degradation of Hydroxy Aromatic Compounds in the Atmosphere* - **Rareş MOCANU**

15:15 - *Theoretical Assessment of Chemical Bonding in Group 14* - **David LUCACI**

15:30 - *Can Calibration Make a Difference? Faster and More Informative Chromatographic Determination of Thiosulfates* - **Sebastian DOROFTEI**

15:45 - *Kinetic Study of the Gas-phase Reaction of OH Radicals with Furfuryl Alcohols* - **Laurenţiu MOVILĂ**

18:00 - Cocktail Dinner

## Thursday - the 18<sup>th</sup> of April 2024

10:30 - Scientific Session: Chemistry

10:30 - *The Effect of Cellulose Fibre Length on the Efficiency of a Flame Retardant System in Poly(lactic acid)* - **Bettina ÖTVÖS (online)**

10:45 - *Novel Homoleptic Organotin(IV) Compound as Potential Ligands for Other Metals* - **Iulia CRIȘAN**

11:00 - *Homojunction SMOSCs with Small Triphenylamine Derivatives as Active Materials* - **Elena-Maria CHEȚA**

11:15 - *Synthesis and Structural Characterization of Novel Polymetallic Organotin(IV) Compounds* - **Marta-Ancuța ANDRIOAIE**

11:30 - Coffee Break

11:45 - Scientific Session: Chemistry

11:45 - *Synthesis, Structural Characterization and Coordination Behaviour of [(4-{2-CH<sub>3</sub>-(4H)-oxazol-5-one}CH)C<sub>6</sub>H<sub>4</sub>]<sub>2</sub>Se* - **Andrei-Dănuț DĂNILĂ**

12:00 - *Copper(I) - N-Heterocyclic Carbene Catalyzed Auto-click Reaction to Access New Interlocked Structures* - **Maria-Mihaela ȘERBAN**

12:15 - *Design, Synthesis and Investigation of Organochalcogen Compounds* - **Cosmina BOHAN**

12:30 - Lunch Break

13:30 - Scientific Session: Chemistry

13:30 - *Structural Particularities of Multifunctional Lanthanide-Based Materials* - **Andreea-Diana ZAMFIRESCU**

13:45 - *Structural and Spectral Characterization of Metal Complexes with Oxime Type Ligands* - **Ana-Maria LUNTRARU**

14:00 - *Hypervalent Organopnictogen(III) Cations* - **Alexandru-Andrei TOMUȚĂ**

14:15 - *Site-Specific Immobilization of D-amino-acid Dehydrogenase (DAADH) Enzyme* - **András-Ernő ISZLAI**

14:30 - *Scouting the Route: Exploring the Biocatalytic Potential of the Aromatic Ammonia-lyase from *Loktanella Atrilutea** - **Gyopárka ÁGOSTON**

15:00 - Workshop: Career development

17:00 - Dog-Assist

## Friday - the 19<sup>th</sup> of April 2024

10:00 - Plenary Session: **Prof. Dr. Eng. Tony KISS** - *Challenges and opportunities in implementing advanced (chemical) recycling solutions for plastics*

11:00 - Coffee Break

11:30 - Poster Section

*Effect of Different Cosolvents and Surfactants on the Thermostability and Activity of (S)-selective Pseudomonas psychrotolerans (PpS-TA)  $\omega$ -transaminase* - **Márk VÉGH**

*Selectivity Studies on the Human Carbonic Anhydrase Enzyme in the Reduction of Diketones and Hydroxy Ketones* - **Bence TÓKÉS**

*The Structural Details of Aspirin, Ibuprofen Molecules and Cocrystal* - **Maria MINCU**

*Potential Biological Activities of Lamium Album Extract* - **Julia BAUMLI**

*Development of a Paper-Based Immunochromatographic Method for C-Reactive Protein* - **Franciska BÉKÉSI**

*Development of Antibody-Functionalized Fluorescent Nanoparticles for High-Sensitivity Immunoassay* - **Péter SZABÓ**

*Towards Metal Substitution in Vitamin B<sub>12</sub>* - **Radu-Ioan ONIJA**

*D-Amino Acid Oxidase Coupled Assay for Directed Evolution of Phenylalanine Ammonia Lyase* - **Naomi BONDILĂ**

*Chitosan-Polyvinyl Alcohol-Based Films Modified with Ca<sup>2+</sup>, Zr<sup>2+</sup> and Mg<sup>2+</sup>, Respectively for Potential Medical Applications* - **Mihaela DANCIU**

*Development and Characterization of Polyvinyl Alcohol-Based Films Modified with Gelatine for Potential Medical Applications* - **Mirela BUTUZA COSTIN**

*Nanocomposite Materials Based on Ordered Mesoporous Silica-Preparation and Possible Application* - **Bianca-Ioana FURNEA**

*Ga Concentration Optimization to Enhance the Optical Properties of Ga-Doped ZnO Nanopowders Prepared by Solid State Reaction* - **Oana-Rebeka NEMETHI**

*Impact of Silica-Coated Silver Nanoparticles on DNA Sensing* - **Maria LUGOJANU**

*Selective Adsorption of Anionic and Cationic Analytes to Silver Nanoparticles* -

**Georgiana ION**

13:30 - Lunch Break

14:30 - Poster Section

*Quality Assessment and Drinking Water* - **Alexia-Maria NIȚU**

*Modeling of Lithium Ion Battery Discharge Process* - **Alexandru MANDACHE and Andrei IONESCU**

*Mechanochemically Formation of Starch-Iodine Complex in Solid State for Analytical Application* - **Miruna-Maria ISACHE**

*Small Molecular  $\pi$ -Conjugated Organic Semiconductors for Single Material Organic Solar Cells (SMOSCs)* - **Nichita MELNIC**

*Synthesis in Preliminary Study on the Insecticide Effect of the 1-Phenyl-1,2,3-Triazol Derivatives* - **David-Emanuel PETREUȘ, Christina ARDELEAN and Dalia AVRAM**

*Synthesis of the 2,7-Dicarbonyl-Alkylfluorene Derivatives and Study of Their Photophysical Properties - Levente BIRÓ*

*Synthesis of NIR-Fluorescent Organic Dyes - Hegedüs BALÁZS*

*A study of the Influence of Phenothiazine Substituents of the Photophysical Properties of Curcuminoids and Boron Complexes - Balázs-Ákos KIS*

*Harnessing New Rubery Organic Frameworks for CO<sub>2</sub> Capture and Separation - Cristina-Mihaela ROTARU*

*Cationic Covalent Organic Polymers for Zinc-Air Battery Applications - Călina-Simina CRIȘAN*

*Synthesis and Optical Properties of Novel Phenothiazinyl Phthalocyanine Derivatives - Ștefana-Maria GRAMA*

*Determining of the Surface Coverage of Antibody Ligands immobilized by off-line microspotting: An SPRi Study - Henrietta DUDÁS*

*Synthesis of Curcuminoids Containing p-Dimethylaminophenyl Group - Andreea-Anita SZÁSZ*

*Photosensitizers Based on Metallophthalocyanines, Electronic Properties and Oxygen Singlet Generation - Silviu-Florin GROZA*

16:30 - Closing Ceremony

20:00 - Quiz night

### **Saturday - the 20<sup>th</sup> of April 2023**

11:00 - Cluj Guided Tour