Inorganic Chemistry

Uhelna

Chair: Oldřich Cicvárek

Group	Start	Name	Presentation title
I)	14:30	Petr Kupka	First Tubular Double Transition Metal MAX Phase: Mo2TiAlC2
I)	14:45	Luis Marco Sabater	Shaping MXenes for electromagnetic interference shielding
I)	15:00	Mitali Mithilesh	Reclaiming Polybutadiene: Direct Catalytic Upcycling to High-Value Propylene
I)	15:15	Aygun Isazade	Oxidation of n-hexane over polymer-anchored manganese sites: correlating EPR/EDS descriptors with kinetics and predictive selectivity maps
II)	16:00	Sergi Tanyà Rovira	Design and synthesis of supramolecular multifunctional switchable materials
II)	16:15	Alexander Friesen	Substituent Effects on Fe(III)-based Molecular Switches

Organic Chemistry

Uhelna

Chair: Killian Heinz

Group	Start	Name	Presentation title
I)	9:00	Jody Mori	Ligand-Directed Probes for Targeted Protein Fluorination: Enabling 19F NMR Spectroscopy in Complex Biological Environments
I)	9:15	Michal Trojan	From Nilotinib to novel potential migrastatic agents
I)	9:30	Nigar Shikhverdiyeva	Engineering Polymer Coordination Environments for Uniform Nickel Immobilization through Benzyl Functionalization of Chitosan
I)	9:45	Jamila Guliyeva	Synthesis and Structural Characterization of Silver Nanoparticle-Gelatine Hydrogel Composites via In Situ Glucose Reduction
II)	10:30	Nazerke Bolatkyzy	From Molecular Design to Bioactivity: Exploring the Chemistry of Piperidine Derivatives
II)	10:45	Gulshan Nahmatova	Monooxidation of Methane over Biomimetic Catalyst
II)	11:00	Samira MaMmadzade	Investigation of the Swelling Behavior of pH-Responsive Chitosan-Based Hydrogels

Biochemistry

Lecture Room AII

Chair: Michal Dvořák

Group	Start	Name	Presentation title
I)	14:30	Petr Husťák	Tropical infusion: The effect of mango addition on the volatile profile and sensory attributes of beer
I)	14:45	Lada Fialová	Development of a high-throughput apparatus for rapid protein footprinting via singlet oxygen labeling
I)	15:00	Pradeep Kumar	From Waste to Taste: Developing a Protein-Enriched Snack from Walnut Pomace
I)	15:15	Mahammad Osmanli	Antimicrobial activity of a novel Copper(II) complex containing a pyrazine-based Tripyridyldiamine ligand
II)	16:00	Alena Osvaldová	Development of Rice (Oryza sativa) Malting and Mashing Technology for Gluten-free Beer Production
II)	16:15	Dominik Novák	Development of label-free impedimetric immunosensor for small extracellular vesicles
III)	16:30	Nina Nováková	Influence of cyclodextrin complexation on allicin stability and biological activity

Environmental Chemistry

Rector's Conference Room

Chair: Kristina Mraz

Group	Start	Name	Presentation title
I)	9:00	Ladislav Bříza	Dimethylglyoxime as an eco-friendly Ni/Co separation agent
I)	9:15	Jiří Fafek	Development of Membrane Separation Processes in Leachate Recycling for Processing Waste Lithium-Ion Baterries
I)	9:30	Raphael Chukwudi	Comparison of Alumina-Supported Co, Mo, and Co-Mo Catalysts for Anisole Hydrodeoxygenation
I)	9:45	Gunel Azimova	Catalytic Depolymerization of Polyethylene Furanoate via alcoholysis method
II)	10:30	Evgeniya Grechman	Cu-Zn-Al catalysts for the hydrogenation of furfural: Influence of synthesis conditions on the catalytic activity
II)	10:45	Jakub Nicek	Application of Chelating Ion Exchangers for the Selective Separation of Critical Metals from Recycled Lithium-Ion Batteries
II)	11:00	Jan Čundrle	CeO2 Nanoscissors for the Catalytic Hydrolysis of Environmentally and Biologically Relevant Molecules
II)	11:15	Nazakat Aliyeva Mammadova	Investigation of the corrosion resistance of electrochemically deposited InSb thin films

Environmental Chemistry

Rector's Conference Room

Chair: Kristina Mraz

Group	Start	Name	Presentation title
III)	13:00	Adham Yaghi	Production of Alternative Drop-in Feedstock for Ethylene Units via Pyrolysis of Tetra Pak Waste
III)	13:15	Matlab Khamiyev	Environmentally friendly heterogeneous ionic liquid type catalytic systems for the oligomerization and polymerization of ethylene
III)	13:30	Kawther Nesrine Benkhemkhem	Sonocatalytic Degradation of 2-Mercaptobenzothiazole (MBT) in Aqueous Solution Using the Green Catalyst Maghnite-H^+
III)	13:45	Fatima Mustafayeva	Thermal behaviour of flame-retardant aluminium hydroxide / polypropylene random copolymer composites: Effect of mineral fillers
IV)	14:30	Tarana Poladova	Development of an Environmentally Friendly Polymer-Complex Surfactant for Rapid Response to Marine Oil Spills
IV)	14:45	Inara Amirova	Synthesis, physicochemical characterisation and oil-dispersing properties of ionic liquid-type surfactant based on decylmethyldiethanolammonium benzoate

Analytical, Physical and Computational Chemistry

Lecture Room AII

Chair: Daniel Šlemar

Group	Start	Name	Presentation title
I)	9:00	Klára Fricová	Road to a low dose gamma colorimetric detection: silver- and lead-doped blue tetrazolium polyvinyl alcohol films
I)	9:15	Michał Gliński	Optimization of Sample Preparation for ICP-MS Determination of Total Silver in Surfactant-Based Products
I)	9:30	Jana Knytlová	Disposable Microfluidic Chips for Clinical Proteomics
I)	9:45	Aygun Zeynalova	Influence of γ-radiation on the electrocatalytic properties of thin electrolytic Ni–Co
II)	10:30	Lukáš Hrubčík	Kratom – a New-age High? Computational NMR Look into its Alkaloids
II)	10:45	Hana Kučerová	Smart sampling and Bayesian reconstruction for accelerated LA-ICP-MS imaging of biological tissues
II)	11:00	Miriam Magočiová	Flocking under confinement: The Vicsek Model in finite and infinite pores
II)	11:15	Jamila Guliyeva	Structural and Electronic Properties of Ag–PEG: A DFT Study

Analytical, Physical and Computational Chemistry

Lecture Room AII

Chair: Daniel Šlemar

Group	Start	Name	Presentation title
III)	13:00	Eliška Rádlová	NMR-omics for the analysis of water-soluble organic compounds in atmospheric aerosol particles
III)	13:15	Nikola Strnádková	The Role of Lipid Nanostructure in Skin Barrier Repair
III)	13:30	Tereza Šimsová	Recrystallization Kinetics of Amorphous Paracetamol and Nifedipine: The Influence of PVP K12 on Molecular Mobility
III)	13:45	Antenor Correia da Silva Júnior	Influence of the hydroxylation pattern on the properties and vibrational signatures of kaempferol, quercetin, and myricetin: an ai-assisted dft approach

Chemical Engineering and Technology

Lecture Room AI

Chair: Viet Tomáš Nguyen & Nina Nováková

Group	Start	Name	Presentation title
I)	9:00	Agata Domańska	Polyurethane Composites with Waste-derived Natural Fillers: Structure, Properties and Ageing Behaviour
I)	9:15	Maciej Tomaszczak	Effect of textile waste incorporation on the microstructure, water absorption, thermal conductivity, and dimensional stability of flexible polyurethane foams
I)	9:30	Weronika Ejm	Polyurethane Foams with Natural Additives: From Cellular Structure to Multifunctional Performance
I)	9:45	Ahmad Ali	A Novel Polyacrylamide-Based Disc for Efficient Water Removal from Argan Oil: Kinetics, Thermodynamics, and Green Assessment
II)	10:30	Wiktoria Patz	Development of Choline Sulfate-Based Aqueous Electrolytes for Supercapacitor Applications
II)	10:45	Dorota Tomczak	From Waste to Function: Rethinking the Role of Wood in Sustainable Polymer Composites
II)	11:00	Samuel Uhliarik	A 100 % API tablet. A dream or reality?
II)	11:15	Nigar Shikhverdiyeva	Polymer Network Formation in Citric Acid Crosslinked PVA–Chitosan/Nickel Nanocomposites

Chemical Engineering and Technology

Lecture Room AI

Chair: Viet Tomáš Nguyen & Nina Nováková

Group	Start	Name	Presentation title
III)	13:00	Kristýna Dvořáková	From fatty esters to terpenes: evaluating microbial lipases for chemoenzymatic epoxidation
III)	13:15	Jakub Hanzl	Comparison of Gas Sensors for Early Fault Detection in Lithium-Ion Batteries
III)	13:30	Agata Hochół	Tuning PLA biological interface through controlled polymer brush grafting for biomedical applications
III)	13:45	Khuraman Shirinova	Establishment of the regression equation for the propylene chlorohydrin concentration using Abkhaz hydrochloric acid
IV)	14:30	Kristýna Požárová	Preparation, characterisation, and release kinetics of crystal violet-loaded Fe3+-crosslinked carboxymethyl cellulose hydrogel beads
IV)	14:45	Kinga Siewierska	Getting the best of inorganic and organic worlds - poly(meth)acrylate-polydimethylsiloxane copolymers via ATRP
IV)	15:00	Lucie Stoupová	Predictive Modelling of Dissolution Profiles: Linking Intrinsic Dissolution Rate with USP 2
IV)	15:15	Hajar Aliyeva	Demulsification of the Muradkhanli Heavy Oil Emulsion under Low-Temperature Conditions

Chemical Engineering and Technology

Lecture Room AI

Chair: Viet Tomáš Nguyen & Nina Nováková

Group	Start	Name	Presentation title
V)	16:00	Anna Šmídová	Effect of Experimental Conditions on Thymol Adsorption by Molecularly Imprinted Polymers
V)	16:15	Enemona Greg Ademu	The Stability of Anthocyanins During the Baking Process and Their Effect on Acrylamide Formation: A Study Using AF Zora Bran Extract
V)	16:30	Roza Shainova	Exploring Sustainable Cement Mortars through Calcined Clay and Basalt Sand
V)	16:45	Hezb Ullah	Copper Ferrite as a Functional Oxide Modifier for Enhanced Electrochemical Performance in Li-Ion Batteries

Data analysis and AI in Science and Technology

Uhelna

Chair: Daniela Janstová & Jakub Tomeš

Group	Start	Name	Presentation title
I)	13:00	Daniel Ondra	Comparison of Recurrent Neural Network for Real-Time Biomass and PHA Estimation in Fed-Batch Cultivations
I)	13:15	Matyáš Garnol	The Raman Fingerprint of Thymus Pathology: Can Machine Learning Tell the Difference?
I)	13:30	Adam Vaculík	Leveraging Unlabelled Raman Spectra: Joint-Embedding Predictive Pretraining for Tissue Classification
I)	13:45	Daniela Janstová	From Raman Spectra to Biochemical Interpretation: An Attention-Guided Transformer Workflow
I)	14:00	Jakub Tomeš	Selective Prediction in Raman Spectroscopy: Confidence-Aware Classification of Rat Thymus Tissue