

The 1st day - MONDAY

1st Plenary Session

Analytical chemistry 1

1. Katarzyna Jedlińska
The renewable galinstan film metal based electrode for voltammetry
2. Łukasz Magda
New application of gassy carbon electrode modified by material composed of ceramic nanopowder and conductive polymers
3. Magdalena Pięk
Comparison of influence of used nanomaterials on Na⁺-ISEs parameters
4. Justyna Robak
Entire volume modification of carbon ceramic electrode using zeolite
5. Joanna Smajdor
Modification layers used in voltammetric measurements
6. Wanda Sordoń
Voltammetric determination of antioxidants

2nd Plenary Session

Analytical chemistry 2 & Environmental protection, alternative energy sources

1. Krystian Węgiel
Voltammetric determination of Mo(VI) at the in situ regenerated BiABE electrode
2. Justyna Zuziak
Voltammetric strategies of aluminium traces determination
3. Kamila Brylewska
Sorption properties of mesoporous ZSM-5 and BEA zeolites
4. Daria Polek
The environmental impact of installations for depolymerization of plastic waste
5. Piotr Rożek
Solidification of hazardous solid waste incineration bottom ash

- | | |
|-------------------------|--|
| 6. Małgorzata Słapińska | Potential of remote sensing data for detection of hydrographic features of lowland river: meandering and oxbow lakes shape changes and water quality. The Biebrza River case study |
|-------------------------|--|

The 2nd day - TUESDAY

3rd Plenary Session

Bioengineering, biotechnology, biomedical engineering & Nanotechnology

- | | |
|-------------------------------------|---|
| 1. Monika Budnicka | Polymer nanospheres with isoniazid preparation and antituberculosis activity studies |
| 2. Aleksandra Kruk | The influence of classic pore precursors on a morphology and mechanical properties of polyesters membranes for tissue engineering |
| 3. Agnieszka Sebai | Preparation of methyl ester of L-serine |
| 4. Katarzyna
Kramek - Romanowska | Potential toxic effects of selected nanoparticles on pulmonary surfactant system |
| 5. Magdalena Krupska | Ion beam mixing and interdiffusion in magnetite thin films after Ar ⁺ ion irradiation |
| 6. Elżbieta Nowak | ZnS nanowires as a new acceptor material for the photovoltaic cells |
| 7. Jacek Wojnarowicz | Research on the size control mechanism of ZnO nanoparticles obtained in microwave solvothermal synthesis |

4th Plenary Session

Mathematical modeling, simulations, optimization & Kinetics, thermodynamics

- | | |
|-------------------------------------|---|
| 1. Dominika Boroń
& Jakub Szyman | External mass transfer limitation of heterogeneous processes for various types of hydrodynamics |
|-------------------------------------|---|

- | | |
|---------------------|---|
| 2. Grzegorz Król | New, simple method of determining necessary conditions of dead zone formation in catalyst pellet |
| 3. Albasher Shareif | Future of Flywheels Technology in Transportation |
| 4. Anna Taraba | Comparison of micellar and alcohol extraction of flavonoid |
| 5. Michał Fedoryk | A new method to compare micromixedness results obtained in iodide-iodate method using different reactant concentrations |
| 6. Tomasz Kotkowski | Investigation of the integrated reactive adsorption process |

5th Plenary Session

Other

- | | |
|--------------------------|---|
| 1. Tamás Földi | Membrane assisted continuous-flow reactions |
| 2. Agnieszka Gabryelczyk | The influence of ionic liquids structure on corrosion parameters in lead-acid battery |
| 3. Małgorzata Graś | The effect of electrode modification on the electrochemical capacitor performance |
| 4. Łukasz Kolanowski | Heteroatom-doped carbons for electrochemical applications |
| 5. Kacper Kopczyński | Ionic liquids as additives for lead-acid battery |
| 6. Aleksandra Zielińska | Synthesis of solid lipid nanoparticles and nanostructured lipid carriers for pharmaceutical and cosmetic purposes |

The 3rd day - WEDNESDAY

6th Plenary Session

Materials Engineering 1 & Apparatus, separation processes

1. Ibrahim Soran
The application of coalescing plate for separating water and oil in water treatment plant in the petroleum industry by utilizing CFD simulation
2. Aleksandra Wajda
Characterization of sol-gel derived glasses from binary system SiO₂-CaO containing cerium ions
3. Justyna Chrzanowska
The effect of substrate temperature on the properties of tungsten boride layers deposited by radio frequency magnetron sputtering and pulsed laser deposition
4. Magdalena Gawęda
Cerium doped amorphous materials based on silicon oxycarbide and their possible applications
5. Renata Jadach
Structural and luminescence properties of germanate glasses modified by aluminium oxide

7th Plenary Session

Materials Engineering 2

1. Péter Kisszékelyi
Size enlargement and recovery of some cinchona-based organocatalysts applying organic solvent nanofiltration
2. Petra Kozma
Synthesis and application of cinchona-squaramide organocatalyst supported on polybenzimidazole membrane
3. Jozsef Kupai
Preparation of synthetic metalloporphyrins and their application in biomimetic oxidations of drugs in flow systems

- | | |
|---------------------|---|
| 4. Paula Łada | The effect of addition of various Ti powders on the zirconia matrix composite |
| 5. Katarzyna Pasiut | The influence of the addition of ZrO ₂ on the technological parameters of a porcelain glazes |

8th Plenary Session
Materials Engineering 3

- | | |
|--------------------------|--|
| 1. Łukasz Rakoczy | Microstructural changes of cast nickel alloys induced by laser beam |
| 2. Julia Rogowska-Tylman | Ultrasonic Coating as a Method of Medical Implants Surface Modification with Bioactive Nanoparticles |
| 3. Jolanta Sroka | The preliminary characterization of amorphous metal surface for power industry application |
| 4. Agata Supeł | Electrodeposition of the calcium-phosphate coatings on titanium for bone tissue engineering |
| 5. Justyna Zygmuntowicz | Fabrication of Al ₂ O ₃ -Ni composites via centrifugal gel casting |

The 1st day – MONDAY

1st Rapid Poster Session & Poster Session

1. Paweł Antkowiak & Radek Krzosa KNiChP Building a Mobile Liquid Nitrogen Generator
2. Aleksandra Zielińska Encapsulation of linalool in solid lipid nanoparticles
3. Aleksandra Głowska The determination of benzophenanthridine and protopine derivatives in biological fluids
4. Katarzyna Jedlińska Application of galinstan film electrode for determination of thallium (I) traces using anodic stripping voltammetry
5. Łukasz Magda Effect of modification of carbon paste electrodes pasted on the quality of the analytical signal
6. Justyna Robak Optimization of instrumental parameters for voltammetric determination of 4-chloro-3-methylphenol using Bi-CCE
7. Magdalena Karpowicz Laser additive manufacturing of composites based on tungsten carbide
8. Sylwia Jarmolińska Esterification reactions conducted in the presence of sulfonated mesoporous silica
9. Anna Kurzych Interferometric fibre sensor for rotational seismology application
10. Marlena Kwiatkowska The four-channel polarimeter to examining the selected optical elements

11. Natalia Przybysz	Electrooptic properties of nematic liquid crystal mixtures doped with gold nanoparticles
12. Natalia Przybysz	Effective methods of selective filling of the air holes in the polarization-maintaining photonic crystal fiber
13. Marta Dąbrowska	The influence of irydoids content on effectiveness of cosmetic formulations
14. Łukasz Rakoczy	Influence of hot dip galvanizing on the microstructure and hardness of heat-

2nd Rapid Poster Session & Poster Session

1. Paulina Dębek	Synthesis and characterization of palladium catalysts supported on SBA-16 materials
2. Aleksandra Zielińska	D-limonene-loaded Solid Lipid Nanoparticles (SLN) as innovative delivery system for pharmacy and cosmetic industries
3. Justyna Robak	The influence of bismuth oxide nanoparticles on electrochemical properties of carbon ceramic electrode
4. Krystian Węgiel	Conditioning of bismuth bulk electrode for the characterization of clothianidin and its determination in selected samples by DPV
5. Katarzyna Wilkosz	Adsorption of benzo[a]pyrene on natural and synthetic materials
6. Aleksandra Wojciechowska	Recovery of zinc(II) from chloride solutions using hollow fibre contactor with pyridine derivatives extractant

7. Sylwia Dąbrowska	The degradation tests of ceramic-polymer composites with hydroxyapatite for orthopedic implants
8. Maria Małysa	Investigating the possibility of manufacturing the composite from nanocrystalline hydroxyapatite and silk fibers and study of its selected properties
9. Agnieszka Patyna	Study of selected aspects in microalgae <i>Chlorella vulgaris</i> cultivation in laboratory conditions
10. Kamil Wierzchowski	Investigation of the rate of oxygen absorption in a wave-type agitated single-use bioreactor
11. Monika Pawlita –Posmyk	Monitoring of domestic sewage treatment plant
12. Magdalena Szaniawska	Determination of CMC values of the surfactant solutions
13. Anna Drzewicz	Analysis of IR spectra of three ring liquid crystalline chiral esters
14. Justyna Jonik	The thermodynamic properties of the liquid crystal stationary phase

The 2nd day - TUESDAY

3rd Rapid Poster Session & Poster Session

1. Paulina Dębek	Hydrodeoxygenation of anisole as bio-oil model compound over Ru/MCM-41 catalysts
2. Sylwia Jarmolińska	Platinum supported on mesoporous silica of MCM-41 type – synthesis and characterization procedures

3. Joanna Smajdor	Carbon black as a modification layer for high sensitive melatonin determination
4. Magdalena Pięk	Improving of nitrate sensors parameters by applying graphene-based intermediate layers
5. Aleksandra Wojciechowska	Recovery of iron(III) from chloride solutions
6. Justyna Zuziak	Voltammetric profiling of tea infusions
7. Emilia Drozdek	Heterogeneous degradation of xenobiotics by sunlight radiation
8. Krystian Węgiel	Electrochemical properties of riboflavin at a metallic annular band electrodes
9. Aleksandra Główka	Antioxidant activity of <i>Chelidonium majus</i> L. plant extract
10. Łukasz Magda	Dopamine detection used to glassy carbon electrode modified by conductive polymer with nanopowders of TiO ₂
11. Magdalena Gawęda	Surface properties of the layers based on cerium doped black glass on austenitic stainless steel substrate
12. Renata Jadach	Research on structural properties of antimony-silicate glasses doped with thulium ions
13. Olga Markowska	Overview of etchant dedicated to wet chemical etching of HgCdTe materials
14. Maksymilian Nowak	Preparation of poly(vinyl alcohol)/graphene composites

The 3rd day - WEDNESDAY

4th Rapid Poster Session & Poster Session

1. Katarzyna Gaładyk Study of series of antiferroelectric smectic mixtures composed with smectogens exhibiting synclinic and anticlinic phases
2. Joanna Moś Influence of different materials on light propagation in tapered optical fiber
3. Marcin Kos Analysis of the effect of shaping the plate of plate heat exchanger on the effectiveness of its work
4. Joanna Lechowska Hydrodynamic studies of magnetically assisted external loop air-lift
5. Agnieszka Chodara Synthesis of nanohydroxyapatite using microwave energy
6. Aneta Duda Investigations of Fe thin films deposited on Si substrates by XRR, RBS, AFM and HSEM
7. Magdalena Krupska Characterization and modification of FePd thin films deposited on SiO₂/Si(001)
8. Diana Rymuszka Stability of water silica suspension with polymer addition
9. Jacek Wojnarowicz Microwave solvothermal synthesis and characterization of ZnO nanoparticles co-doped with Co²⁺ and Mn²⁺ ions
10. Bartosz Woźniak Ultrasonic coating technology for improving bone implants
11. Magdalena Pięk Improving of nitrate sensors parameters by applying graphene-based intermediate layers

12. Agnieszka Gabryelczyk	1-alkyl-4-(dimethylamino) pyridinium bis(trifluomethylsulfonyl) imides as electrolytes for supercapacitors
13. Małgorzata Graś	Anode material for direct borohydride fuel cell
14. Marta Pytlarczyk	New nematic liquid crystals with long conjugated π electronic system

5th Rapid Poster Session & Poster Session

1. Jolanta Sroka	Aluminosilicates as an effective filler for epoxy resin composites
2. Renata Wonko	Long Periods Fibers Grating made by filament heating
3. Marta Dąbrowska	Stability testing of cosmetic bases for skin care products using multiple light scattering method
4. Wanda Sordoń	Is chemometrics and voltammetry a great couple for food profiling and authenticity?
5. Anna Drzewicz	Helical pitch of bicomponent systems of 3FnXPhY series
6. Justyna Jonik	The Raman spectroscopy and X-ray photoelectron spectroscopy as the methods of graphene analysis
7. Łukasz Kolanowski	Ionic liquids additives for nickel electroplating
8. Kacper Kopczyński	Removal of organic contaminants from water systems by using hybrid process
9. Marta Pytlarczyk	Synthetic pathways of novel high fluorinated C4-C4 dialkylphenyltolanes

10. Adriana Szydłowska	Influence of solid concentration on rheological properties of the suspensions
11. Tomasz Wawer	Synthesis and analysis of oxidised graphite
12. Joanna Smajdor	Use of the renewable mercury film electrode for sensitive determination of selected hormones
13. Krystian Węgiel	Elimination of environmental sample matrix interferences by using XAD-7 resin in voltammetric determination of Mo(VI)
14. Katarzyna Pasiut	The influence of the addition of ZrO_2 on the surface parameters of a porcelain glazes treated construction steel