

9:30 a.m., Monday, 8th April

1st PLENARY SESSION
Material Engineering 1

1 Jolanta Nieroda

Dependence of preparation conditions on quality and strength of binder made of Tetraethyl orthosilicate and 1,2-Bis(triethoxysilyl)ethane

2 Maciej Bik

Optimization of SiAlOC glasses coatings' formation by means of structural and microstructural investigation

3 Katarzyna Czarnecka

Selection of solution blow spinning process parameters for the fabrication of controlled-alignment tissue engineering scaffolds

4 Paweł Goj

Structure of aluminum-iron phosphate glasses by theoretical and experimental studies

5 Aleksandra Kalbarczyk

Design and calibration of Young's interferometer with piezoelectric adjuster

6 Dawid Kozień

Thermal oxidation of boron carbide edges

11:30 a.m., Monday, 8th April

2nd PLENARY SESSION

Mathematical modeling, simulations, optimization 1 & Other 1

1 Marcin Zemła

Ab initio-based kinetic Monte Carlo simulation of Cr segregation process in bcc-Fe-Cr alloys

2 Nina Borzęcka

Modelling dynamics of polymer chains grafted to a surface of a separative membrane

3 Ewa Litwinek

Influence of composition changes on rheological properties of clay-cement binders

4 Tomasz Rzemieniecki

Biologically active double salt ionic liquids with cations based on diglycolamine

5 John Noon

The Use of Rutin Hydrate Pickering Particles to Combat Lipid Oxidation in Food Emulsions

2:30 p.m., Monday, 8th April

3rd PLENARY SESSION
Bioengineering, biotechnology, biomedical engineering

1 Magdalena Gawęda

Modification of black glasses layers properties for medical applications

2 Katarzyna Pieklarz

Chitosan hydrogels based on the pyrimidine nucleoside (UMP)

3 Michał Wrzecionek

Poly(glycerol sebacate) as prepolymer material for biomedical applications – synthesis and purification method

4 Monika Budnicka

Manufacturing of polylactide substitutes for spongy bone with increased hydrophilicity - preliminary investigation and optimization of the process

5 Oliwia Jeznach

Immobilization of gelatin on electrospun polyesters nanofibers to enhance biological response

6 Ewa Rybak

Preparation and analysis of the surface of modified steel materials and their applications as a surface for endothelial cell culture

9:30 a.m., Tuesday, 9th April

4th PLENARY SESSION
Mathematical modeling, simulations, optimization 2

1 Agnieszka Fus

Analysis of influence of aggregate structure on its behaviour in non-newtonian fluid

2 Krystian Jędrzejczak

Reconstruction of particle size distribution based on a finite number of distribution's moments in the Matlab environment

3 Radosław Krzosa

Computational fluid dynamics simulation of high shear mixers

4 Nikola Mijalić

Validation of the RANS turbulence model for CFD simulations of the Francis turbine

5 Norbert Wiatr

Modelling of suspension grinding processes in selected industrial apparatus

6 Adam Zieliński

Computational fluid dynamics simulations of electric storage-tank water heater

11:30 a.m., Tuesday, 9th April

5th PLENARY SESSION
Material Engineering 2

1 Donata Kuczyńska-Zemła

Apatite inducing ability of titanium after direct laser interference lithography

2 Maciej Ludwig

High temperature interactions between refractory raw materials and copper slags

3 Zuzanna Góral

Studies on the fire protection properties of the wood adhesives

4 Justyna Pleśniak

Properties of 3Y-TZP/AL₂O₃ composite as a solid electrolyte material for a new generation of electrochemical devices.

5 Łukasz Rakoczy

Analysis of the nano-precipitates in the Ni-based superalloys by electron microscopy

6 Renata Szal

The barium-gallo-germanate glasses as a perfect matrix for RE ions to induce intense emission in UV, VIS and IR region

3:15 p.m., Tuesday, 9th April

6th PLENARY SESSION
Analytical chemistry & Nanotechnology

1 Szymon Wójcik

New strategy of food samples classification base on decomposed voltametric signal

2 Anna Górska

High sensitive AdSV determination of iron in presence of azo compound on renewable mercury film electrode

3 Justyna Kopec

Voltammetric testing of the degree of aluminum release from tea leaves

4 Nikola Lenar

All-solid-state Ca(2+)-selective electrodes with TCNQ and KTCNQ crystals as internal layer

5 Justyna Lipińska

Determination of Vitamin K2 by differential pulse voltammetry with bi-disc glassy carbon electrode

6 Radosław Porada

Vitamin B3 determination by means of voltammetry and electrochemical impedance spectroscopy techniques

7 Anna Wojewódzka

Towards novel ZnO quantum dots coated with mixed-ligand shell

9:30 a.m., Wednesday, 10th April

7th PLENARY SESSION
Apparatus, separation processes &
Environmental protection, alternative energy sources

1 Bartosz Nowak

Influence of MTMS-based aerogel structure on properties of modified filter

2 Kamila De Witte

Verification of separation effectiveness of filters applied for diesel fuel dewatering

3 Zuzanna Bojarska

Graphene oxide-based materials as supports for catalyst nanoparticles

4 Marwa Saad

Selective Catalytic Reduction of NO with NH₃ at low temperature over Cu-promoted-N-modified activated carbon

5 Paulina Summa

Comparison of hydrotalcites-alike materials prepared by different synthesis methods

6 Agnieszka Szymaszek

Modified bentonite-derived materials as catalyst for selective catalytic reduction of nitrogen oxides (SCR)

7 Kinga Pogoda

Effect of vacuum on activated sludge

11:45 a.m., Wednesday, 10th April

8th PLENARY SESSION
Material Engineering 3

1 Piotr Rożek

Post-synthesis modification of geopolymer structure

2 Dominika Czerwińska-Główka

Controlling the growth of bacterial biofilm on electroactive surfaces

3 Karolina Gębka

Electro-synthesis and investigation of indole and carbazole
"copolymers" with 3-hexylthiophene

4 Damian Honisz

Effect of changing chalcogen atom on electron delocalization
on benzo-chalcogendiazoles radical anions.

5 Łukasz Szymański

Composite layer reinforced by TiC particles fabricated in situ
in steel castings

6 Joanna Gnyla

Optimal parameters of the SiC-based suspension for the slip casting
method

2:35 p.m., Wednesday, 10th April

9th PLENARY SESSION
Kinetics, thermodynamics & Other 2

1 Marcin Gerlich

Burn rate measurements and thermal analysis of gasless pyrotechnic compositions on the example of a Fe – BaO₂ system

2 Tomasz Kotkowski

Adsorption of volatile organic compounds on activated tyre pyrolysis char

3 Gyula Dargó

Synthesis of new, axial and central chiral (thio)squaramides, and their application as organocatalysts in enantioselective reactions

4 Zsuzsanna Fehér

Synthesis and application of a cinchona squaramide organocatalyst immobilized on poly(glycidyl methacrylate)

5 Petra Kozma

Synthesis and application of cinchona-based, enlarged organocatalysts

6 Sándor Nagy

Investigation of the effect of cinchona organocatalyst's quinuclidine substituent on enantioselectivity in Michael reactions

7 Anna Drewniak

Synthesis and properties of 1,7-disubstituted perylene diimides