

Program of the

**20th Romanian International
Conference on Chemistry and
Chemical Engineering**



RICCCE 2017

6 – 9 September 2017
Poiana Brasov, Romania

Wednesday 6 September 2017 – Opening Sessions

Registration

Time: 12:00 – 17:00

Opening Ceremony

Time: 17:00 – 17:30

Plenary Session

Time: 17:30 – 19.45

Chaired by: Horia IOVU and Catinca SECUIANU

17:30 – 18:15

Adelina IANCULESCU (*University Politehnica of Bucharest, ROMANIA*)

Multifunctional perovskite oxides - The key of electroceramics

18:15 – 19:00

Mircea DINCA (*Massachusetts Institute of Technology: MIT, Cambridge, USA*)

Catalysis and charge transport in microporous metal-organic frameworks

19:00 – 19:45

Jean-Noel JAUBERT (*Ecole Nationale Supérieure des Industries Chimiques, Nancy, FRANCE*)

Carbon dioxide capture and storage (CCS) processes: influence of the thermodynamic model on performance calculations and sizing considerations

Welcome Cocktail

Time: 20:00

Thursday 7 September 2017 – Morning sessions

Plenary Session

Time: 08:30 – 13:15

Chaired by: Alina BADANOIU and Florina DUMITRU

08:30 – 09:15

Mihai BARBOIU (*Institut Européen des Membranes, Montpellier, FRANCE*)
Artificial water channels

09:15 – 10:00

Roland BAUMSTARK (*BASF SE, Ludwigshafen, GERMANY*)
All in all 25 years of experience in the fields of dispersions and paints

10:00 – 10:45

Helena GODINHO (*Faculty of Sciences and Technology of New University of Lisbon, PORTUGAL*)
Bio- and electrospun micro/nano filaments shapes and surface morphologies

Coffee Break

Time: 10:45 – 11:00

Chaired by: Raluca STAN and Daniela ISTRATI

11:00 – 11:45

Horia IOVU (*University Politehnica of Bucharest, ROMANIA*)
From polymer-based nanomaterials to bionanomaterials. UPB towards the Bioengineering Valley

11:45 – 12:30

Wolfgang SCHUHMANN (*Center for Electrochemical Sciences, Ruhr Universitat Bochum, GERMANY*)
From nanoelectrochemistry to electrocatalysis. Fundamental aspects of energy conversion

12:30 – 13:15

Craig FAULDS (*Aix-Marseille Université, FRANCE*)
Filamentous Fungi and their enzymes: a diverse tool for biomass deconstruction and product transformation

Thursday 7 September 2017 – Afternoon sessions

Workshop

Future of Biomedical Engineering

Time: 15:00 – 17.00

The Faculty of Medical Engineering organizes a special workshop on "Future of Biomedical Engineering" to promote the strategy of University POLITEHNICA of Bucharest (UPB) on the development of the field of Biomedical Engineering.

This event represents a timely discussion of recent achievements and challenges approached in biomaterials for tissue engineering, implant design, medical devices for tissue regeneration therapies.

The speakers will refer to the development of the Biomedical Engineering as a research priority included in the institutional strategy of UPB.

The workshop welcomes teaching staff, researchers, students interested in pursuing a career in Biomedical Engineering as well as participants from industry, policy makers and regulatory affairs.

Speakers: Prof. **Horia IOVU**, Prof. **Sorin JINGA**, Prof. **Anca GALACTION**, PhD. **Mariana IONITA**

Thursday 7 September 2017 – Afternoon sessions

New Developments in Chemical Synthesis & Catalysis

Section 1

Time: 15:00 – 18:45

Chaired by: **Raluca Stan** and **Cristina Ott**

15:00 to 15:15

Maria-Gabriela Alexandru (University Politehnica of Bucharest, Romania), Diana Visinescu

Magnetic molecular materials based on cyanido metalloligands

15:15 to 15:30

Angelica Vad, **Mirela-Fernanda Zaltariov** ("Petru Poni" Institute of Macromolecular Chemistry, Romania), Maria Cazacu, Mihaela Avadanei

Discrete structures built by flexible Schiff bases and Cu(II), Mn(II) and Ni(II) ions

15:30 to 15:45

Matei Raicopol (University Politehnica of Bucharest, Romania), Ruxandra Atasiei, Luisa Pilan, Corina Andronescu, Anamaria Hanganu

Columnar ionic liquid crystals - improved electrolytes for dye-sensitized solar cells (DSSCs)

15:45 to 16:00

Luiza Izabela Jinga (Institute of Organic Chemistry "C.D. Nenitescu" of Romanian Academy, Romania), Anamaria Hanganu, Daniela Bala, Lavinia Ruta, Ileana Farcasanu, Constantin Mihailciuc, Simona Nica

Physicochemical properties and antioxidant evaluation of azulenyl-substituted chalcone

16:00 to 16:15

Maria Marinescu (University of Bucharest, Faculty of Chemistry, Romania), Larisa Georgiana Popa, Mariana-Carmen Chifiriuc, Diana Gabriela Tudorache, Costinela Spîrleanu, George Iuliu Marton, Cristina Stavarache

Density Functional Theory molecular modeling of new benzimidazoles with antimicrobial properties

16:15 to 16:30

Stefan Tomas, **Ana Maria Brezoiu** (University Politehnica of Bucharest, Romania), Daniela Berger, Cristian Matei

Synthesis of tricyclic molecules and interaction studies with mesoporous silica

16:30 to 16:45

Alina Moroşan (University Politehnica of Bucharest, Romania), Raluca Stan, Daniela Istrati, Dan Eduard Mihaiescu

Alternative hybrid nanostructured support for solid phase peptide synthesis

16:45 to 17:00

Mihai Radu (University Politehnica of Bucharest, Romania), Bogdan Purcăreanu, Daniela Istrati, Raluca Stan, Dan Eduard Mihaiescu

Adsorption capacity correlation with shell polarity of magnetic core-shell nanocarriers for pesticides trace analysis sample preparation

Coffee Break

Time: 17:00 – 17:15

Chaired by: **Ioan Calinescu** and **Daniela Istrati**

17:15 to 17:30

Ștefan-Bogdan Ivan (University of Bucharest, Faculty of Chemistry, Romania), Ioan-Cezar Marcu

Oxidative dehydrogenation of ethane into ethylene over tin (SnP_2O_7) and titanium (TiP_2O_7) pyrophosphates catalysts

17:30 to 17:45

Ciprian Chisega-Negrilă (University Politehnica of Bucharest, Romania), Ioan Călinescu, Aurel Diacon, Adrian Trifan

Supported nanocatalysts and their testing in organic synthesis

17:45 to 18:00

Adrian Trifan (University Politehnica of Bucharest, Romania), Aurel Diacon, Bogdan Mirică, Ioan Călinescu

Catalysts for Fischer-Tropsch synthesis

18:00 to 18:15

Anamaria Vartolomei (University Politehnica of Bucharest, Romania), Adina Ionuta Gavrila, Ioan Calinescu

Intensification of enzymatic synthesis of esters in ultrasound assisted system

18:15 to 18:30

Simona Nica (Institute of Organic Chemistry "C.D. Nenitescu" of Romanian Academy, Romania), Sorana Ionescu, Anamaria Hanganu, Monica Duldner, Stela Iancu, Andrei Sarbu, Emeric Barthä

Development of new catalyst through mechanistic investigations of organocatalytic depolymerization of PET waste with isosorbide

18:30 to 18:45

Florina Teodorescu (Institute of Organic Chemistry "C.D. Nenitescu" of Romanian Academy, Romania), Octavian D. Pavel

Catalytic synthesis of alkylpyrazines over mixed oxides obtained from LDHs materials

Thursday 7 September 2017 – Afternoon sessions

Biochemistry, Food & Health

Section 2

Time: 15:00 – 19:15

Chaired by: **Daniela Istrati** and **Mihaela Mihalache**

15:00 to 15:30 - *Keynote*

Stefan Tomas (University Politehnica of Bucharest, Romania) Elena Brîndușe, Cristian Aurelian Boscornea, Cristina Viorica Pop, Lidia Fîciu, Mariana Pătrașcu, Gh. Stoian

Superior valorization of the polyphenol extracts from Romanian wines of the Valea Călugărească region

15:30 To 15:45

Gudovan Dragos (University Politehnica of Bucharest, Romania), Todasca Cristina, Tociu Mihaela, Trusca Roxana, Manolescu Bogdan, Manolache Fulvia

Valorization of waste from wine industry as support for natural repellents

15:45 to 16:00

Stefan Theodor Tomas (University Politehnica of Bucharest, Romania), Elena Brîndușe, Cristian Aurelian Boscornea, Cristina Viorica Pop, Lidia Fîciu

Extraction methods for polyphenols from vines, copper (II) complexes and plant protection

16:00 to 16:15

Camelia Elena Iurciuc (Tincu) ("Gheorghe Asachi" Technical University, Iasi, Romania), Marcel Popa

Curcumin immobilisation on particles based on polysaccharides

16:15 to 16:30

Lucia Coc (University Politehnica of Bucharest, Romania), Ioana Lacatusu, Nicoleta Badea, Denisa Udeanu, Anca Pop, Catalina Negut, Ion Tanase, Raluca Stan, Aurelia Meghea

Nanostructured carriers based on lipid mediators and their therapeutic effects

16:30 to 16:45

Cristina Todasca (University Politehnica of Bucharest, Romania), Mihaela Tociu, Aurelia Bratu, Mihaela Mihalache, Dragos Voicu, Fulvia Manolache

Methods for authentication of cheese adulteration with exogenous fats

Coffee Break

Time: 17:00 – 17:15

Chaired by: **Stefan Tomas** and **Cristina Todasca**

17:15 to 17:45 - Keynote

Paul Vasos (Extreme Light Infrastructure - Nuclear Physics (ELI-NP), Romania)

Enhanced NMR to follow enzymatic reactions in living cells

17:45 to 18:00

Mohammed Naithel Radhi (Agricultural and Veterinary Sciences University of Bucharest, Romania), Cristina Petrisor, Ioan Roşca, Hattf Bazool Farhood, Nicolae Crăciun, Gheorghe Stoian

*Biochemical and microbiological study concerning identification role of hydrolase activities from *Trichoderma harzianum* and *Trichoderma koningii* in pathogenic fungus *F. oxysporum* inhibition*

18:00 to 18:15

Maria Petrescu (National Institute for Chemical Pharmaceutical Research and Development ICCF - Bucharest, Romania), Gabriela Savoiu, Mariana Spiridon, Mihaela Eremia

*Inulinase bio-production using *Aspergillus* sp.: Screening of microorganisms and process parameters optimization*

18:15 to 18:30

Caterina Tomulescu (University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania), Misu Moscovici, Angela Casarica, Ioana Nicu, Delia Jitea, Roxana Stoica

Isolation and screening of microbial strains for potential antimicrobial activity

18:30 to 18:45

Ferenc Kilár (Faculty of Economics, Socio-Human Sciences and Engineering, Sapientia Hungarian University of Transylvania, Romania), Csilla Páger, Nikoleta Biherczová, Viktor Sándor

Capillary isoelectric focusing of proteins coupled to mass spectrometry

18:45 to 19:00

Maria Marcvar (University POLITEHNICA of Bucharest, Romania), Ligia Stoica, Carolina Constantin

Removal of Brilliant Blue FCF by ozone – an alternative for waste water treatment

19:00 to 19:15

Mihaela Deaconu (University POLITEHNICA of Bucharest, Romania), R.A. Mitran, I. Nicu, C. Matei, D. Berger

Influence of organic groups grafted on MCM-41-silica on the lomefloxacin release kinetics

Thursday 7 September 2017 – Afternoon sessions

Physical Chemistry; Electrochemistry & Corrosion

Section 3

Time: 15:00 – 17:00

Chaired by: **Mihaela Ungureanu** and **Florentina Golgovici**

15:00 to 15:30 - Keynote

Marius Enachescu (University Politehnica of Bucharest, Romania)

Synthesis of carbon nano-tubes, carbon nano-onions and graphene using a novel reactor and carbon nano-tubes applications in organic solar cells

15:30 to 15:45

Norbert Wagner (German Aerospace Center (DLR), Stuttgart, Germany), Fabian Bienen, K. Andreas Friedrich

Production and characterization of gas diffusion electrodes for CO₂ reduction to formic acid

15:45 to 16:00

Adrian Nicoara (Babes-Bolyai University, Cluj-Napoca, Romania)

Electrochemical investigation of the adsorption of some organometallic compounds on lead and their implications on hydrogen evolution reaction

16:00 to 16:15

Tengyi Liu (Beihang University, Beijing, China), Qingyong Wu, Ning Xue, Chao Li, Qing Zhang, Min Xiang, Peng Diao

An efficient and durable 3D-nickel hydroxide electrocatalyst for oxygen evolution reaction in alkaline media

16:15 to 16:30

Liana Anicai (University Politehnica of Bucharest, Romania), Aurora Petica, Stefania Costovici, Danut Balan, Oana Brincoveanu, Aida Pantazi, Teodor Visan

Electrodeposition of tin-indium alloy involving ionic liquids analogues

16:30 to 16:45

Carlos Pereira (University of Porto, Portugal), A. T. Brandão, N. M. Pereira, F. Silva

MWCNTs - Sn composites electrodeposition from choline chloride-based deep eutectic solvents

16:45 to 17:00

Simona Popescu (University Politehnica of Bucharest, Romania), Cristina Dumitriu, Raluca Ion, Cristian Pirvu

Synthesis and characterization of biocompatible coatings with entrapped nanoceria particles

Thursday 7 September 2017 – Afternoon sessions

New Concepts in Chemical and Biochemical Engineering

Section 4

Time: 17:15 – 19:30

Chaired by: **Vasile Lavric** and **Petru Ilea**

17:15 to 17:30

Ionuț Banu, Anca-Elena Costea, **Grigore Bozga** (University Politehnica of Bucharest, Romania), Ana-Maria Gălan, Elena Radu, Sanda Velea, Emil Stepan, Olimpiu Blajan, Augustin Constantin Crucean
A kinetic study of glycerol acetylation process

17:30 to 17:45

Andreea Georgiana Școban (University Politehnica of Bucharest, Romania), Gheorghe Maria
*Setting optimal operating policies of a fluidized bed bioreactor used for mercury uptake from wastewaters by using immobilized *P. putida* cells*

17:45 to 18:00

Elena Viorica Ioniță (University Politehnica of Bucharest, Romania), Alexandru Woinaroschy, Eugenia Panțuru, Aura Daniela Radu
Identification and characterization of environmental pollution sources of natural radionuclides and heavy metals from the Aries river basin

18:00 to 18:15

Alexandru Woinaroschy (University Politehnica of Bucharest, Romania)
Sustainability in chemical engineering

18:15 to 18:30

Cristina Singureanu, Alexandru Woinaroschy (University Politehnica of Bucharest, Romania)
Simulation and control of a municipal wastewater treatment process using SuperPro designer simulator

18:30 to 18:45

Réka Sinkler (University Politehnica of Bucharest, Romania), Márta Both Fodor, Pál Salamon, Emőke Antal, Zsolt Bodor, Ildikó Miklóssy, Szabolcs Lányi
Heterologous expression, purification, and primary characterization of an alcohol/aldehyde dehydrogenase suitable for 1,4 butanediol production

18:45 to 19:00

Katalin Nagy, **Songor-Kálmán Orbán** (University Politehnica of Bucharest, Romania), Beáta Albert, Ildikó Miklóssy, Pál Salamon, Szabolcs Lányi
Proteomimetic SMAC peptides: cloning, heterologous expression with fusion partner, purification and interaction with inhibitor of apoptosis proteins

19:00 to 19:15

Anca Andreea Țurcanu (SC Research Institute for Auxiliary Organics Products SA, ICPAO Mediaș, Romania), Sanda Velea, Mihaela Bomboș, Gabriel Vasilievici, Rami Doukeh, Dragoș Ciuparu, Paul Roșca

Palladium and copper catalysts for furfural hydrogenation

19:15 to 19:30

Mihaela Dochia, **Simona Gavrilăș** (University "Aurel Vlaicu" of Arad, Romania), Monica Pustianu, Daniel Tomescu

Sodium citrate as a new possible complexing agent for the bioscouring treatment of the cellulosic/lignocellulosic fabrics

Thursday 7 September 2017 – Afternoon sessions

New Materials and Nanomaterials

Section 6

Time: 15:00 – 19:45

Chaired by: **Georgeta Voicu** and **Constantin Dorinel Voinițchi**

15:00 to 15:30 - *Keynote*

Alina Bădănoiu (University Politehnica of Bucharest, Romania)

Waste valorization in the production of construction materials

15:30 to 15:45

Constantin Dorinel Voinițchi (Technical University of Civil Engineering Bucharest), Georgeta Voicu, Adrian-Alexandru Pîrvan

Hydration and hardening of Portland cement in some aqueous mixtures

15:45 to 16:00

Adrian Volceanov (University Politehnica of Bucharest, Romania), Eniko Volceanov

Theoretical approach of oxide hardness applied to mineralogical compounds of clinkers

16:00 to 16:15

Ioana Vlăsceanu (University Politehnica of Bucharest, Romania), Alina Bădănoiu, Cristina Dima (Văduva), Ștefania Stoleriu

Alkali activated materials for thermal insulation

16:15 to 16:30

Radu R. Piticescu (National R&D Institute for Nonferrous and Rare Metals), Adrian M. Motoc, Arcadii Sobetskii, Anca E. Slobozeanu, Albert I. Tudor

Innovative ceramic coatings for high temperature applications

16:30 to 16:45

Carmen Oproiu (University Politehnica of Bucharest), Georgeta Voicu, Adrian-Ionuț Nicoară, Alina-Ioana Bădănoiu

Binding properties of masses based on clinker obtained by using fly ash as one component of raw materials

16:45 to 17:00

Marius Dumitrescu (University Politehnica of Bucharest, Romania), Constantin Dorinel Voinițchi, Alina Bădănoiu

Assessing robustness and rheological properties of cement paste as a first step in predicting robustness of self compacting concrete

Coffee Break

Time: 17:00 – 17:15

Chaired by: **Roland Baumstark** and **Mariana Ionita**

17:15 to 17:45 - *Keynote*

Catalin Zaharia (University Politehnica of Bucharest, Romania), Ionut-Cristian Radu, Paul O. Stanescu, Eugenia Vasile, Ariana Hudita, Bianca Galateanu, Horia Iovu

Bombyx mori silk nanoparticles loaded with efficient drugs for cancer management

17:45 to 18:00

Ionut-Cristian Radu (University Politehnica of Bucharest, Romania), Catalin Zaharia, Bianca Galateanu, Paul O. Stanescu, Eugenia Vasile, Horia Iovu

Polymeric nanocomposite materials with LDH content for biomedical applications

18:00 to 18:15

I. E. Bîru (University Politehnica of Bucharest, Romania), S. A. Gârea, H. Iovu

New approach in graphene-oxide polybenzoxazine nanocomposites synthesis

18:15 to 18:30

Jana Ghitman (University Politehnica of Bucharest, Romania), Raluca Stan, H. Iovu

New polymer - vegetable oil nanoparticles with potential biomedical applications

18:30 to 18:45

Alexandra Ioana Cernencu (University Politehnica of Bucharest, Romania), Jana Ghitman, Adriana Lungu, Horia Iovu

Novel thiol-epoxy-POSS hybrid "click" systems

18:45 to 19:00

Adi Ghebaur (University Politehnica of Bucharest, Romania), A.I. Mihai (Voicu), S.A. Garea, M.A. Pandeale, Horia Iovu

Hybrid materials based on polymer and porous clay heterostructures

19:00 to 19:15

Corina Andronescu (Chemistry – Center for Electrochemical Sciences (CES), Ruhr-Universität Bochum, Germany), Stefan Barwe, Edgar Ventosa, Justus Masa, Eugeniu Vasile, Wolfgang Schuhmann

Polybenzoxazines – precursors for carbon matrices for electrocatalyst immobilization

19:15 to 19:30

Celina Damian (University Politehnica of Bucharest, Romania), Gongea A., Hubca G., Petre R., Vasile E., Iovu H

Advanced polyurea nanocomposites reinforced with functionalized carbon nanoparticles

19:30 to 19:45

Andreea Madalina Pandeale, (University Politehnica of Bucharest, Romania), Corina Andronescu, Eugeniu Vasile, Patricia Medesan, Horia Iovu

The effect of the non-covalent functionalization of GO on the mechanical performances of pectin composite films

Friday 8 September 2017 – Morning Sessions

Plenary Session

Time: 09:00 – 13:15

Chaired by: Stefan VOICU and Catalin ZAHARIA

09:00 – 09:45

Peng DIAO (*School of Materials Science and Engineering, Beihang University, CHINA*)
WO₃-based composite nanomaterials for solar water splitting

09:45 – 10:30

Luc AVEROUS (*University of Strasbourg, FRANCE*)
Innovative thermoplastic polysaccharides from different resources

Coffee Break

Time: 10:30 – 11:00

Chaired by: Raluca ISOPESCU and Anton FICAI

11:00 – 11:45

Edward RÓJ (*New Chemical Syntheses Institute, Pulawy, POLAND*)
Supercritical fluid extraction - state and future trends

11:45 – 12:30

José SANCHEZ-MARCANO (*Institut Européen des Membranes, Montpellier, FRANCE*)
Modeling enzymatic membrane reactors

12:30 – 13:15

José M.F. FERREIRA (*University of Aveiro, CICECO, PORTUGAL*)
Chemistry issues behind the in vitro and in vivo performance of bone graft materials

Friday 8 September 2017 – Afternoon sessions

Physical Chemistry; Electrochemistry & Corrosion

Section 3

Time: 15:00 – 18:45

Chaired by: **Cristian Pirvu** and **Daniela Ionita**

15:00 to 15:30 - Keynote

Olivier Siri (CNRS / Aix-Marseille Université, France)

Emerging NIR dyes for photonic and electronic

15:30 to 16:00 - Keynote

Eric Saint-Aman (Université Grenoble Alpes, France), Guy Royal, Saioa Cobo

The trans-dimethyldihydropyrene/cyclophanediene system: a versatile multiadressable platform

16:00 to 16:15

Eleonora-Mihaela Ungureanu (University Politehnica of Bucharest, Romania), George-Octavian Buică, Elena Diacu, Magdalena-Rodica Bujduveanu, Ionuț Stănescu, Cecilia Iordache, Valentin Stănescu

Studies related to the preparation of azulene derivatives modified electrodes for heavy metals detection optimization

16:15 to 16:30

Bogdan Tutunaru (University of Craiova, Romania), A. Samide, C. Tigae, C. Spînu, C. Neamțu

Spectroelectrochemical studies of interactions between vitamin A and silver nanocolloids

16:30 to 16:45

Cristina Dumitriu (University Politehnica of Bucharest, Romania), Claudiu Manole, Raluca Ion, Cristian Pirvu

ZnO - TiO₂ nanostructured surfaces for biological applications

16:45 to 17:00

Raluca Ion, Valentina Mitran, Wanda Polipciuc, Patricia Neacsu, Simona Popescu, Madalina Georgiana Necula, Cristian Pirvu, **Anisoara Cimpean** (University of Bucharest, Romania)

In vitro assessment of cellular response to icariin-functionalized TiO₂ nanotubes designed to promote bone regeneration

Coffee Break

Time: 17:00 – 17:15

Chaired by: **Anca Cojocar** and **Oana Ciocirlan**

17:15 to 17:45 - Keynote

Danut Ionel Vaireanu (University Politehnica of Bucharest, Romania), N. Vasilcsin

Could one achieve a self-recharging double layer capacitor?

17:45 to 18:00

Cecilia Arsene (University "Al. I. Cuza", Iasi, Romania), Mihaela Petrea-Ioneasa, Iustinian Gabriel Bejan, Romeo-Iulian Olariu

Gas-phase kinetic study of OH radical reactions with selected saturated ketones

18:00 to 18:15

Claudiu-Constantin Manole (University Politehnica of Bucharest, Romania), Dumitriu Cristina, Cristian Pirvu

Charge carrier density studies for TiO₂/ZnO nanostructures: An insight into the applicative driving force

18:15 to 18:30

Konstantinos Dermentzis (Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece)

Continuous capacitive deionization for water desalination

18:30 to 18:45

Adina Magdalena Musuc ("Ilie Murgulescu" Institute of Physical Chemistry, Bucharest, Romania), Luiza Jecu, Mihaela Doni, Vlad Tudor Popa

Fast thermo-analytical investigation of polymer biodegradability

Friday 8 September 2017 – Afternoon sessions

New Concepts in Chemical and Biochemical Engineering

Section 4

Time: 15:00 – 19:15

Chaired by: **Edward RóJ** and **Valentin Pleşu**

15:00 to 15:30 - Keynote

Ioan Călinescu (University Politehnica of Bucharest, Romania), Mircea Vînătoru

Process intensification using microwaves and ultrasound

15:30 to 15:45

Valentin Pleşu (Centre for Technology Transfer in the Process Industries, University Politehnica of Bucharest, Romania), Petrica Iancu, Alexandra Bonet-Ruiz, Jordi Bonet-Ruiz, Enric Botella Tapiador, Aurelian Toma, Nicoleta Gabriela Ştefan, Ştefan Toader

TAME synthesis pilot plant modelling and experiments

15:45 to 16:00

Nicoleta Gabriela Ştefan (University Politehnica of Bucharest, Romania), Valentin Pleşu, Ioan Călinescu, Petrica Iancu, Alexandra-Elena Bonet-Ruiz, Jordi Bonet-Ruiz, Aurelian Toma

Mathematical modelling of molecular distillation

16:00 to 16:15

Iulian Pătraşcu (University Politehnica of Bucharest, Romania), Marilena Nicolae, Costin Sorin Bîldea, Petrica Iancu, Valentin Pleşu

Hybrid separation techniques for butanol recovery from the ABE process

16:15 to 16:30

Mara Crişan (University Politehnica of Bucharest, Romania), Gheorghe Maria

Pareto-optimal operating policies of a mechanically agitated continuous reactor used for the oxidation of D-Glucose on co-immobilized pyranose Oxidase and Catalase

16:30 to 16:45

Ştefania-Simona Bucur (University Politehnica of Bucharest, Romania), **Petrica Iancu**, Valentin Pleşu, Dumitru Coman

CO₂ as a source to obtain synthetic natural gas

16:45 to 17:00

Draga Dragnea (University Politehnica of Bucharest, Romania), Dragoş Gudovan, Elena Zaharia, Costin Sorin Bîldea, Ion Dragnea

Aluminium pigments encapsulated in SiO₂ inorganic nanostructures

Coffee Break

Time: 17:00 – 17:15

Chaired by: **José Sanchez-Marcano** and **Tănase Dobre**

17:15 to 17:45 - Keynote

Tănase Dobre (University Politehnica of Bucharest, Romania)

Modern processes in food engineering: A coupled process for processing Sea Buckthorn fruits

17:45 to 18:00

Alexandru Vlaicu (University Politehnica of Bucharest, Romania), Petre Chipurici, Ioan Călinescu, Marin Vasilescu

Hydrodynamic cavitation – equipment and uses

18:00 to 18:15

Gheorghe Mihai (University Politehnica of Bucharest, Romania), Iuliana Jipa, Marta Stroescu, Anicuța Stoica, Tănase Dobre

Aspects concerning the computation of the separator serving an oil well

18:15 to 18:30

Bogdan Trică (University Politehnica of Bucharest, Romania), Cedric Delattre, Guillaume Pierre, Alina-Violeta Ursu, Christine Gardarin, Philippe Michaud, Gholamreza Djelveh, Tănase Dobre

*Extraction of seaweed biomolecules from the Romanian Black Sea (*Cystoseira barbata*)*

18:30 to 18:45

Bogdan Trică (University Politehnica of Bucharest, Romania), Cedric Delattre, Alina-Violeta Ursu, Philippe Michaud, Gholamreza Djelveh, Tănase Dobre, Marta Stroescu

Ultrafiltration with membrane surface clogging in batch processing of some primary algae extracts

18:45 to 19:00

Cristian Eugen Răducanu (University Politehnica of Bucharest, Romania), Adina Gavriliță, Oana Pârvulescu, Petre Chipurici, Tănase Dobre

Fed-batch biodiesel production: experimental results and modelling in transesterification of waste vegetable oils to biodiesel

19:00 to 19:15

Alexandru Vlaicu (University Politehnica of Bucharest, Romania), Petre Chipurici, Vasile Lavric, Daniel Ighigeanu, Ioan Călinescu

Unconventional methods for enhancing the fermentation process

Friday 8 September 2017 – Afternoon sessions

Monitoring & Environmental Protection

Section 5

Time: 15:00 – 19:00

Chaired by: **Simina Stefan** and **Corina Andronescu**

15:00 to 15:30 - Keynote

Stefan Voicu (University Politehnica of Bucharest, Romania)

Applications of composite membranes with carbon nanotubes in environmental decontamination

15:30 to 15:45

Mirabela Nicoleta Foran, Florica Imre-Lucaci, **Szabolcs Fogarasi**, Melinda Nagy, Arpad Imre-Lucaci, Petru Ilea

Copper recovery from electronic component free WPCBs by electrochemical processing

15:45 to 16:00

Paul Chirita, Madalina I. Duinea, Ana-Maria Sandu

Reaction of pyrite (FeS_2) with oxygen-bearing solution

16:00 to 16:15

Carolina Constantin, Ligia Stoica

Zn(II), Mn(II) and Fe(III) removal by combined process

16:15 to 16:30

Mariana-Gratiela Soare (Vladu), Irina Lupescu, Misu Moscovici, Narcisa Babeanu

*The effects of pH, of temperature, and of carbon source on growth and development of *Erwinia* sp. and *Xanthomona* ssp.*

16:30 to 16:45

Ágnes Keresztesi, Robert Szép, Réka Keresztes, Ildikó Miklóssy

Precipitation chemistry and the influence of different sources on the ionic composition of rainwater collected in Harghita county, Romania

16:45 to 17:00

Simona Gavrilas, Florentina Munteanu

Use of winery products for the remediation of wastewater

Coffee Break

Time: 17:00 – 17:15

Chaired by: **Cristina Costache** and **Stefan Voicu**

17:15 to 17:45 - Keynote

Yongxia Sun, Andrzej G. Chmielewski

Overview electron beam technology application in environmental protection

17:45 to 18:15 - Keynote

Cristina Orbeci, Annette Madelene Dăncilă, Cristina Modrojan, **Daniela Simina Ștefan**

Removal of low biodegradable organic compounds from wastewater

18:15 to 18:30

Lidia Favier, **Mircea Cristian Pantilimon** (University Politehnica of Bucharest, Romania), Claudia Dragan, Andrei Ionut Simion, Lacramioara Rusu, Yassine Kadmi, Ecaterina Matei

On the enhancement of the elimination of a persistent emerging pollutant in a photocatalytic process

18:30 to 18:45

Iustinian Bejan, Romeo-Iulian Olariu, Ian Barnes, Peter Wiesen

Atmospheric chemistry of catechol. product studies and mechanistic investigations

18:45 to 19:00

Romeo Iulian Olariu, Claudiu Roman, Iustinian Gabriel Bejan, Cecilia Arsene

ESC-Q-UAIC chamber, a proper analytical tool for the estimation of infrared absorption cross sections for selected volatile organic compounds in the gas phase

Friday 8 September 2017 – Afternoon sessions

New Materials and Nanomaterials

Section 6

Time: 15:00 - 19:30

Chaired by: **Ecaterina Andronescu** and **Jose M.F. Ferreira**

15:00 to 15:30 - Keynote

Ștefania Stoleriu (University Politehnica of Bucharest, Romania)

Synthesis, characterization and in vitro behavior of ceramic scaffolds with enhanced osseointegration

15:30 to 15:45

Cristina Busuioc (University Politehnica of Bucharest, Romania), C.D. Ghițulică, G. Voicu, M. Stroescu, S. Dinescu, L. Averous

Effects of processing parameters on the properties of calcium phosphates - bacterial cellulose composites and derived mineral scaffolds

15:45 to 16:00

Krivoshapkina E.F (ITMO University, Russia), Mikhaylov V.I., Krivoshapkin P.V

Sponge-like α -Fe microtubes: Sol-gel synthesis and characterization

16:00 to 16:15

Vladimir. L. Ene (University Politehnica of Bucharest, Romania), I. A. Neacșu, R. Trușcă, B. Ș. Vasile, D. Gudovan, A. M. Holban, M. C. Chifiriuc, C. Bleotu

Antimicrobial efficacy of metallic nanoparticles enhanced hydrogels for wound healing

16:15 to 16:30

Oana Fufă (National Institute for Laser, Plasma and Radiation Physics, Romania), R.C. Popescu, A.M. Holban, B.Ș. Vasile, R. Trușcă, M. Socol, G. Popescu-Pelin, G. Socol, A.M. Grumezescu, E. Andronescu

Bionanostructured HAp/Ag coatings for titanium-based implants

16:30 to 16:45

Roxana M. Piticescu (National R&D Institute for Nonferrous and Rare Metals), Madalina L. Popescu, Dan N. Ciobota

Chemical synthesis of hybrid nanomaterials with design functionalities for biomedical applications

16:45 to 17:00

Ionela Andreea Neacșu (University Politehnica of Bucharest), A. M. Holban, M. C. Chifiriuc, V. A. Surdu, C. Bleotu, G. Grădișteanu, D. Gudovan

Composite hydrogels based on collagen and oxide nanoparticles with antibacterial activity

Coffee Break

Time: 17:00 – 17:15

Chaired by: **Izabela Stancu** and **Catalin Zaharia**

17:15 to 17:45 - Keynote

Mariana Ionita (University Politehnica of Bucharest, Romania), George Mihail Vlasceanu, Livia Crica, Horia Iovu

Graphene based biomaterials for health care; Computer aided design and experiments

17:45 to 18:15 - Keynote

Izabela Cristina Stancu (University Politehnica of Bucharest, Romania), Etienne Schacht, Bubenikova Silvia, Kalinovsk Lucia, Evi Lippens, Maria Cornelissen, Heidi Declercq, Matteo Santin, Muriel Amblard, Jean Martinez

Biopolymer-peptide bioconjugates for improved cell adhesion

18:15 to 18:30

Marin Gheorghe (University Politehnica of Bucharest, Romania), I. Gainar, S. Gheorghe

Materials syntheses using supercritical CO₂

18:30 to 18:45

Alexandru Rotaru ("Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania)

DNA-assisted decoration of single-walled carbon nanotubes with metal nanoparticles

18:45 to 19:00

George Mihail Vlăsceanu (University Politehnica of Bucharest, Romania), Teddy Martial Tite, Jorge S. Burns, Mariana Ioniță

Surface modifications of graphene oxide for high-performance osteogenic differentiation biomarkers detection

19:00 to 19:15

Aurel Diacon (University Politehnica of Bucharest, Romania), Edina Rusen, Leona Cristina Nistor

Supported Cu⁰ nanoparticles catalyst for controlled radical polymerization reaction and block-copolymer synthesis

19:15 to 19:30

Andrada Serafim (University Politehnica of Bucharest, Romania), E. Olaret, M.G. Albu Kaya, M. Ghica, I.C. Stancu

Bicomponent hydrogels based on modified biopolymers

Saturday 9 September 2017 – Morning Session

Plenary Session

Session 6

Time: 09:00 – 12:00

Chaired by: **Cristian PIRVU** and **Ileana RAU**

09:00 – 09:45

Takao HANAWA (*Tokyo Medical and Dental University, Tokyo, JAPAN*)

Biofunctionalization of metals meeting clinical demand

09:45 – 10:30

Toshiyuki WATANABE (*Tokyo University of Agriculture and Technology, JAPAN*)

Photo induced domino effect isomerization of azobenzene in polyimide network

10:30 – 11:15

Rodica STOIAN (*Ronexprim, ROMANIA*)

Ronexprim - The most reliable Romanian partner of knowhow and technology transfer from technology producers to you

11:15 – 12:00

Vijay Kumar THAKUR (*Cranfield University, UK*)

Sustainable materials for a greener environment

Closing Ceremony

Time: 12:00 – 12:15

POSTER PRESENTATIONS

New Developments in Chemical Synthesis & Catalysis

POSTER PRESENTATIONS

Section 1

Thursday 7 September 2017

Time: 15:00 – 19:00

S1 – 016

Emil Stepan (National Research and Development Institute for Chemistry and Petrochemistry ICECHIM, Romania), Sanda Velea, Gabriel Vasilievici, Elena Radu, Adrian Radu, Cristina Emanuela Enascuta, Elena Emilia Oprescu, Vasile Lavric

New biofuels based on glycerol ketal esters

S1 – 023

Costel Moldoveanu („Alexandru Ioan Cuza” University of Iași, Faculty of Chemistry, Romania), Dana Bejan, Gheorghiță Zbancioc, Dorina Amăriucăi-Mantu, Ionel Mangalagiu

New imidazole derivatives possible ionic liquids

S1 – 060

Raluca Sanda Komartin (University Politehnica of Bucharest, Romania), Nicoleta Chira, Brindusa Bălănuță, Matei Raicopol, Take Constantinescu, Raluca Stan

Epoxidized Lallemandia iberica seed oil for novel ecofriendly composite materials based on renewable resources

S1 – 068

Gheorghiță Zbancioc („Alexandru Ioan Cuza” University of Iași, Faculty of Chemistry, Romania), Costel Moldoveanu, Dorina Amăriucăi-Mantu, Vasilichia Antoci, Ionel Mangalagiu

Microwave assisted synthesis of some benzofuran derivatives with fluorescent properties

S1 – 096

Dorina Amăriucăi-Mantu („Alexandru Ioan Cuza” University of Iași, Faculty of Chemistry, Romania), Vasilichia Antoci, Maria-Mirabela Grigore, Cătălina Ionica Ciobanu, Costel Moldoveanu, Ionel Mangalagiu

NMR complexation studies of some quinoline derivatives

S1 – 113

Violeta Niculescu (National Research and Development Institute for Cryogenics and Isotopic Technologies – ICSI, Romania), Viorica Parvulescu

Platinum/mesoporous silica catalysts for oxidation reactions in liquid phase

S1 – 135

Raluca Stan (University Politehnica of Bucharest, Romania), Brîndușa Bălănuță, Horia Iovu

Vegetable oil derived elastomers suitable for osmotic-driven drug release

S1 – 136

Raluca Runceanu (University Politehnica of Bucharest, Romania), Brîndușa Bălănuță, Raluca Stan, Cristina Ott

Methacrylated vegetable oils applied in recovery of the residual lipids from the food industry effluents

S1 – 195

Laura Vasilica Arsenie, Bogdan Stefan Vasile, **Ovidiu Oprea** (University Politehnica of Bucharest, Romania)

Synthesis of ZnO by forced hydrolysis. A study on the solvent influence

S1 – 211

Chao Li (School of Materials Science and Engineering, Beihang University, Beijing, P .R. China), Dianyi Hu, Tengyi Liu, Qing Zhang, Ning Xue, Min Xiang, Peng Diao

Nanoflake array films CuWO₄ photoanodes: influence of cooling rate on the photoactivity

S1 – 223

Alexandru Ciocarlan (Institute of Chemistry, Academy of Sciences of Moldova, Republic of Moldova), Aculina Aricu, Lidia Lungu

Photochemical reactions as key steps in synthesis of norlabdanes

S1 – 254

Maria-Gabriela Alexandru, **Diana Visinescu** (Institute of Physical Chemistry, Romanian Academy, Romania), Sergiu Shova, Francisc Lloret, Miguel Julve

Cyanido-bridged {Ln^{III}W^V} heterobinuclear complexes: synthesis and magneto-structural study

S1 – 292

Mihai Deleanu (Institute of Organic Chemistry "C.D. Nenitzescu" of Romanian Academy, Romania), Alina Nicolescu, Emeric Bartha, Florina Dumitru

Multinuclear MR characterization of some 2,6-pyridinediamides and their anion binding properties

S1 – 353

Monica Duldner, **Emeric Bartha** (Institute of Organic Chemistry "C.D. Nenitzescu" of Romanian Academy, Romania), Stela Iancu, Simona Nica, Stanca Capitanu, Bogdan Cursaru, Andrei Sarbu, Sorina Garea, Madalina Pandele, Steluta Apostol

Synthesis of oligoester-polyols for polyurethane rigid foams from polymer wastes and renewable comonomers, using organocatalysts

Biochemistry, Food & Health

POSTER PRESENTATIONS

Section 2

Thursday 7 September 2017

Time: 9:00 – 13:00

S2 – 52

Lidia Lungu (Institute of Chemistry, Academy of Sciences of Moldova, Republic of Moldova), Aculina Aricu, Svetlana Blaja, Alexandru Ciocarlan, Alic Barba

Synthesis of new potential biologically active tetra- and pentanorlabdane compounds with 1,3-thiazole units

S2 – 58

Marcela Elisabeta Barbinta-Patrascu (University of Bucharest, Romania), Nicoleta Badea, Camelia Ungureanu, Stefan Marian Iordache, Stefan Antohe

Paeonia officinalis extract as „green” remover of intercalating dye from DNA molecule

S2 – 71

Aussama A. Mahdi Al-Ajeely (Babylon University, Iraq), Fadhil H. Al-Dulaimi, Yasir Mahmoud Ali, Ahmed Kareem Hammood Jaberi

Prevalence of toxoplasmosis infection in Babylon province, Iraq

S2 – 73

Aussama A. Mahdi Al-Ajeely, **Yasir Mahmoud Ali** (Sam Higginbottom University of Agriculture, Technology and Sciences, India), Ahmed Kareem Hammood Jaberi

*Efficacy of neem products against root knot nematode, *meloidogyne incognita* in tomato (*Lycopersicon esculentum*, Mill)*

S2 – 75

Milka Atanasova (University Prof. Dr. Assen Zlatarov, Bulgaria), Tzonka Godjevargova

*Application of four nucleic acid-binding fluorescent dyes: Propidium iodide, TO3CN, TO and YO-Dam 1 in *Saccharomyces cerevisiae* live/dead staining*

S2 – 77

Marina Yaneva, **Yavor Ivanov** (University Prof. Dr. Assen Zlatarov, Bulgaria), Tzonka Godjevargova

Simultaneous immunofluorescence assay of paraoxon and dichlorvos based on magnetic nanoparticles

S2 – 82

Gabriela Hristea (National Institute for R&D in Electrical Engineering, INC DIE ICPE CA, Romania), Mihai Iordoc, Daniel Lipcinski, Paula Barbu, Radu Tanasa

Design of carbon nanoparticles for immunoassay development

S2 – 84

Aculina Aricu, Kaleria Kuchkova, **Elena Secara** (Institute of Chemistry of the Academy of Sciences of Moldova, Republic of Moldova), Alic Barba, Ion Dragalin, Pavel Vlad

Synthesis of iso-drimenoic acid amides with diazine units from norambreinolide

S2 – 86

Zlatina Becheva, Katya Gabrovska, **Tzonka Godjevargova** (University Prof. Dr. Assen Zlatarov, Bulgaria)

Comparison between direct and indirect immunofluorescence method for determination of somatic cell count

S2 – 91

Ahmed Kareem Hammood Jaber (University of Bucharest, Romania), Yasir Mahmoud Ali, Aussama A. Mahdi Al-Ajeely

Efficacy of neem oil, Trichoderma harzianum and mancozeb against early blight in tomato (Lycopersicon esculentum Mill)

S2 – 97

Mihaela Mihalache (University Politehnica of Bucharest, Romania), Cristina Todasca, Mihaela Tociu, Aurelia Bratu, Valentin Ionescu

Influence of rainfall regime on grape seed oil composition

S2 – 99

Ahmed Kareem Hammood Jaber (University of Bucharest, Romania), Maria Mernea, Dan Florin Mihailescu, Gheorghe Stoian

Characterization of silver-doped zein nanoparticulates coated with lipopolysaccharides

S2 – 102

Jasim Hafedh Mohammed Al-Saedi (University of Bucharest, Romania), Maria Mernea, Livia Petrescu, Octavian Calborean, Dan Florin Mihailescu

Bovine serum albumin glycation addressed by spectroscopic techniques

S2 – 118

Ioana Asofiei (University Politehnica of Bucharest, Romania), Calinescu I., Gavrila A. I., Ighigeanu D., Martin D

Microwave pretreatment of plant materials to improve the maceration process

S2 – 123

Stefan Theodor Tomas (University Politehnica of Bucharest, Romania), M. Olteanu, C. Pop, D. Panait, A. Stan, N. Crăciun, C. Boscornea, Gh. Stoian

Studies of anti-fungal effects of polyphenols from Vitis vinifera and their copper-complexes on Saprolegnia spp., a fungus pathogen

S2 – 193

Alina Culețu (National Institute of R&D for Food Bioresources – IBA Bucharest, Romania), Alina Alexandra Dobre

Study on the antimicrobial activity of two aqueous fractions from tea

S2 – 196

Mihaela Violeta Ghica ("Carol Davila" University of Medicine and Pharmacy, Romania), Lăcrămioara Popa, Iuliana Diana Bărbulescu, Mădălina Georgiana, Albu Kaya, Răzvan Teodorescu, Radian Nicolae Negrilă, Avramescu Roxana, Constanta Mihai, Mihai Frîncu, Corina Dumitrache, Simona-Ioana Marinescu, Valerica Tudor, Alexandru Cîrîc, Mihaela Begea

Primary analysis of brewing yeast biomass powder for suspensions formulation

S2 – 202

Aculina Aricu (Institute of Chemistry, Academy of Sciences of Moldova, Moldova), Caleria Cucicova, Lidia Lungu, Alexandru Ciocarlan, Elena Secara

Synthesis and applications of new nitrogen-containing drimane and homodrimane compounds

S2 – 229

Zsolt Bodor (Sapientia University, Romania) Ildikó Miklóssy, Szabolcs Lányi, Beáta Albert

Model driven re-design and analysis of the metabolism of Escherichia coli for 1,4-butanediol production from renewable feedstocks

S2 – 255

M. Deaconu, **Robert Tincu** (University Politehnica of Bucharest, Romania), A.M. Brezoiu, R.A. Mitran, I. Nicu, C. Matei, D. Berger

Tailored doxycycline delivery from MCM-41-type materials

S2 – 266

Rodica Tatia (National Institute for Research and Development of Biological Science, Romania), Ioan Calinescu, Christina Zalaru, Isabela Tarcomnicu, Lucia Moldovan

In vitro cytotoxicity evaluation of isolated saponins from Hedera helix L. extract

S2 – 268

Nicoleta Badea (University Politehnica of Bucharest, Romania), Ioana Lacatusu, Georgiana Neacsu, Cristina Ott, Camelia Ungureanu

Encapsulation of carotenoid biopigment in nanostructured lipid carriers with enhanced antioxidant and antimicrobial activity

S2 – 297

Suciu A. (University Politehnica of Bucharest, Romania), Bîra A.F., Tamaş V., Dobre T.

Effects of concentration processes and activated carbon immobilization on enzymatic activity of some barley malt extracts

S2 – 300

Oana Ciuperca („Gheorghe Asachi” Technical University, Romania), Carmen Țebrencu, Irina Volf

*Polyphenols investigation of branches of *Prunus spinosa* L. species*

S2 – 302

Diana Stegarus (National Research and Development Institute for Cryogenics and Isotopic Technologies – ICSI, Romania), Corina Ciucure, Roxana Elena Ionete

Tracking some emerging environmental contaminants acting as endocrine disruptors

S2 – 304

Dejan Prvulović (University of Novi Sad, Serbia), Mirjana Ljubojević, Đorđe Malenčić, Jovana Šućur, Marijana Peić Tukuljac, Vladislav Ognjanov

Effect of maturity stage on antioxidant capacity of sweet cherry stalks and fruits

S2 – 308

Maria Mernea (University of Bucharest, Romania), Octavian Calborean, Livia Petrescu, Dan Florin Mihailescu, Mariana Tamara Nechifor

Dose dependent UVA effect on serum albumin addressed by THz spectroscopy

S2 – 311

Corina Ciucure (National Research and Development Institute for Cryogenics and Isotopic Technologies – ICSI Ramnicu Valcea, Romania), Diana Stegarus, Roxana Elena Ionete

Characterisation of Romanian traditional fruit brandies in terms of their major volatile compounds

S2 – 312

Ludmila Otilia Cintează (University of Bucharest, Romania), Petruța Oancea, Cristina Lavinia Nistor, Violeta Purcar, Ioana Ailiesei, Constantin Mircioiu

Organo-modified silica nanoparticles as novel drug delivery system for a synergetic antipain formulation containing aspirin, paracetamol and caffeine

S2 – 315

Delia Dobre (SC Salmed Farma SRL, Romania), Ancuța Roxana Trifoi, Timea Gherman, Maria Râpă, Rami Doukeh, Laura Silaghi-Dumitrescu

Magnetic chitosan enzymatic systems for extraction of resveratrol from grape skin

S2 – 327

Camelia-Elena Iurciuc (Tincu) ("Gheorghe Asachi" Technical University, Romania), Alexandru Savin, Patrick Martin, Marcel Popa

Particles based on polysaccharides mixture with yeast cells immobilised: obtaining, physico-chemical characteristics and fermentative activity

S2 – 330

Andreea Cristina Donise (University Politehnica of Bucharest, Romania), Andreea Elena Ungureanu, Mihaela Emanuela Craciun, Oana Cristina Parvulescu

Detection of adulterants in vegetable oils

S2 – 337

Anca-Daniela Raiciu (S.C. Hofigal Export-Import S.A.), Ștefan Manea

Improvement digestive disorders with the help of gemmotherapy

S2 – 343

Oana Ciocirlan (University Politehnica of Bucharest, Romania), Amalia Stefaniu, Lucia Pintilie

Molecular docking studies on the interactions between amyloid peptide A β 42 and two sugar-based peptidomimetics

Physical Chemistry; Electrochemistry & Corrosion

POSTER PRESENTATIONS

Section 3

Thursday 7 September 2017

Time: 15:00 – 19:00

S3 – 10

Ionelia Voiculescu (University Politehnica of Bucharest, Romania), Victor Geanta, Maria Ionescu, Robert Ciocoiu, Cosmin Cotrut, Radu Stefanoiu

Mechanical and microstructural characterization of a new corrosion resistant stainless steel

S3 – 20

George Costin Lazar (University Politehnica of Bucharest, Romania), Anca Cojocaru, Marina Patrascu, Claudiu Campureanu, Danut-Ionel Vaireanu

Practical way of reducing the conductivity measurements experimental errors

S3 – 21

Ioana-Alina Ciobotaru (University Politehnica of Bucharest, Romania), Oana-Claudia Ciobotea Barbu, Florin-Mihai Benga, Ioana Maior, Danut-Ionel Vaireanu, Irina-Elena Ciobotaru

The effect of substrate anodisation on deposited BTSE silane films

S3 – 22

Florin-Mihai Benga (University Politehnica of Bucharest, Romania), Danut-Ionel Vaireanu, Ioana-Alina Ciobotaru, Anca Cojocaru, Irina-Elena Ciobotaru

A novel use for reconditioned Li-polymer rechargeable batteries

S3 – 30

Iulia Dumitrescu (RATEN-Institute for Nuclear Research, Romania), Tiberiu Meleg, Maria Mihalache

A thermogravimetric study of uranium hydriding under isothermal conditions

S3 – 34

Oana Adina Oancea (University Politehnica of Bucharest, Romania), Jacobus Frederick van Staden, Elena Oancea, Eleonora-Mihaela Ungureanu

Electrochemical detection of ursolic acid from one original dermato-cosmetic plant extract with regenerative effect on human skin, using modified sensors

S3 – 38

Jose Maria Calderon Moreno (Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Romania), Monica Popa, Silviu Iulian Drob, Cora Vasilescu, Petre Osiceanu, Ecaterina Vasilescu, Ioana Demetrescu

A new Ti-Zr-Ta-Ag alloy behaviour in simulated human electrolyte

S3 – 39

Silviu Iulian Drob (Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Romania), Cora Vasilescu, Monica Popa, Jose Maria Calderon Moreno, Petre Osiceanu, Mihai Andrei, Ioana Demetrescu

CoCrNbMoZr a promising new dental alloy

S3 – 40

Monica Popa (Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Romania), Jose Maria Calderon Moreno, Cora Vasilescu, Silviu Iulian Drob, Ecaterina Vasilescu

Properties and microstructure of a new quaternary Ti-Zr-Ta-Ag alloy for implants

S3 – 46

Ana-Maria Sandu (University of Craiova, Romania), Bianca Ghejan, Madalina Duinea, Geta Carac, Lucian Birsa, Paul Chirita

The effect of 4-(5-bromo-2-hydroxyphenyl) -5-methyl-2-(morpholin-4-yl) -1,3-thiazol on the oxidative dissolution of pyrite in acidic medium

S3 – 50

Madalina I. Duinea (University of Craiova, Romania), Geta Cârâc, Bianca Ghejan, Ana-Maria Sandu, Lucian M. Birsa, Paul Chirita

The oxidative dissolution of pyrite in the presence of 1-(5-bromo-2-hydroxyphenyl)-1-oxaethan-2-yl-N,N-diethyldithiocarbamate

S3 – 62

Nicolae Vaszilcsin (University Politehnica Timișoara, Romania), Mircea Laurentiu Dan, Andrea Kellenberger

Electrochemical behavior of YBaCo₂Fe₂O_{7.5} electrodes in neutral aqueous solutions

S3 – 65

Andreea–Floriana Enache (University Politehnica Timișoara, Romania), Mircea Laurentiu Dan, Nicolae Vaszilcsin

Anodic oxidation of sulphite ions in alkaline media on platinum electrode

S3 – 79

Livia Alexandra Gugoasa (National Institute of Research for Electrochemistry and Condensed Matter, Romania), Raluca-Ioana Stefan van Staden

Pattern recognition of interleukins in serum samples using stochastic sensors

S3 – 80

George-Octavian Buica (University Politehnica of Bucharest, Romania), Eleonora-Mihaela Ungureanu, Liviu Birzan, Ioana-Georgiana Lazar

New azulene-EDTA like compound for metal ion complexation

S3 – 83

Delia-Andrada Duca (University Politehnica Timișoara, Romania), Mircea-Laurentiu Dan, Nicolae Vaszilcsin

Recycling of expired domestic drug – Paracetamol – as additive in nickel and copper electrodeposition baths

S3 – 87

Sergiu Sima (University Politehnica of Bucharest, Romania), Adrian Crișciu, Oana Ciocirlan, Cristian Dincă, Catinca Secuianu, Viorel Feroiu

Phase behaviour for binary systems containing CO₂ at high pressures of interest for carbon capture and storage

S3 – 89

Aurora Petica (University Politehnica of Bucharest, Romania), Stefania Costovici, Danut Balan, Oana Brincoveanu, Liana Anicai

Electrodeposition of Sn-Cu alloys using choline chloride based ionic liquids

S3 – 98

Stefania Costovici (Mibatron SRL-Bucharest, Romania), Aurora Petica, Calin Moise, Teodor Visan, Liana Anicai

Electrodeposition of Sn-Ag-Cu ternary alloys involving choline chloride based ionic liquids

S3 – 104

János Szövérfi (University Politehnica of Bucharest, Romania), Kálmán-Csongor ORBÁN, Szabolcs LÁNYI, Szilárd FEJÉR

Modelling the thermal stability of wild-type and mutant dimers of the CCMV capsid protein

S3 – 105

Sarmad Al Hadeethi (University of Bucharest, Romania), Livia Petrescu, Dan Mihăilescu, Cătălin-Dumitru Petrescu

System for measuring electrical parameters of biological samples based on Electrochemical Impedance Spectroscopy

S3 – 111

Anca Cojocaru (University Politehnica of Bucharest, Romania), Stefania Costovici, Liana Anicai, Adina Cotârță, Teodor Visan

Diffusion-controlled electroreduction of Pb²⁺ ion to Pb from deep eutectics solvents containing choline chloride

S3 – 115

Alexandru Pumnea (University Politehnica of Bucharest, Romania), Florentina Golgovici, Danut Balan, Marius Enachescu, Liana Anicai

Ni-Mo alloy nanostructures as cathodic materials for hydrogen evolution reaction during water electrolysis

S3 – 134

Cristian Pirvu (University Politehnica of Bucharest, Romania), Stefania Popescu, Cristina Dumitriu

Bioinspired modification of nanostructured titanium surface for a better interaction with biological environment

S3 – 142

George Razvan Pandelea Dobrovicescu (University Politehnica of Bucharest, Romania), Florentina Golgovici, Ioana Demetrescu, Maria Sajin, Daniela Ionita

Correlations between electrochemical stability of stents from patients and morphological aspect of their cardiac structure

S3 – 143

Maria Vardaki (University Politehnica of Bucharest, Romania), Daniela Ionita, Ioana Demetrescu

Nanostructures elaboration and characterization on Zr and Zr alloys

S3 – 144

Mariana Prodana, **Daniela Ionita** (University Politehnica of Bucharest, Romania), Florentina Golgovici, Marius Enachescu

Nano-TiO₂ anode for batteries based on ionic liquid

S3 – 145

Florentina Golgovici (University Politehnica of Bucharest, Romania), Alexandru Pumnea, Stefania Costovici, Teodor Visan, Marius Enachescu, Liana Anicai

Comparative investigation of HER on Ni-Co alloy coatings electrodeposited from DES based electrolytes

S3 – 146

Wanda Polipciuc (University Politehnica of Bucharest, Romania), Simona Popescu, Cristina Dumitriu, Raluca Ion, Valentina Mitran, Ana-Maria Albu, Mariana Prodana, Anisoara Cimpean, Cristian Pirvu

Functionalization of Ti surfaces with bioactive phytomolecules of Herba Epimedii with osteoprotective effect

S3 – 151

Mirela Anastasiu (University Politehnica of Bucharest, Romania), Ileana Rău

Rapid assessment of spice extracts composition using UV-VIS and fluorescence spectra

S3 – 175

Mariana Prodana (University Politehnica of Bucharest, Romania), Florentina Golgovici, Daniela Ionita, Dionezie Bojin, Marius Enachescu

Electrochemical synthesis of CoSb nanowires used as anode in batteries

S3 – 176

Manuela Rossemary Apetroaei (University Politehnica of Bucharest, Mircea cel Bătrân Naval Academy, România), Ileana Rău, Alina Bădănoiu, Dinu Atodiresei, Verginica Schroder

Environmental behavior of the Rapana venosa egg capsules

S3 – 177

Verginica Schroder, **Manuela Apetroaei** (University Politehnica of Bucharest, Mircea cel Bătrân Naval Academy, România), Ileana Rău, Dinu Atodiresei

New-chitosan cytological effects in different salinity solutions using Artemiasalina as bio tester

S3 – 180

Ioana-Georgiana Lazăr (University Politehnica of Bucharest, Romania), George-Octavian Buica, Eleonora-Mihaela Ungureanu, Elena Diacu, Eric Saint-Aman

Pb(II) detection by chemical preconcentration-anodic stripping voltammetry using a modified electrode based on poly(1H-pyrrole-1-hexanoic acid)

S3 – 194

Georgiana-Raluca Sandu (University Politehnica of Bucharest, Romania), Nita Irina, Osman Sibel, Olga Iulian

Study of the impact of isopropanol addition to diesel fuel

S3 – 234

Ioana Maior (University Politehnica of Bucharest, Romania), Anca Cojocaru, Dănuț-Ionel Văireanu, Ioana-Alina Ciobotaru

Juglans Regia extract as green corrosion inhibitor for mild steel

S3 – 237

Oana Ciocirlan (University Politehnica of Bucharest, Romania), Amalia Stefaniu, Olga Iulian

Viscosities of 1-alkyl-3-methylimidazolium ionic liquids and their binary mixtures with dimehyl sulfoxide

S3 – 246

Daniela Ion-Ebrasu (National Institute for Cryogenics and Isotopic Technologies ICSI-Rm. Valcea, Romania), Stanica Enache, Adnana Zaulet, Mirela Dragan, Dorin Schitea, Mihai Varlam, Konstantin Petrov

Electrochemical characterization of catalysts for PEM alkaline electrolysis (PEM.OH⁻)

S3 – 248

Sorin Mocanu (Romanian Academy, "Ilie Murgulescu" Institute of Physical Chemistry, Romania), Iulia Matei, Gabriela Ionita

Dual molecular probes with fluorescent and paramagnetic moieties linked by short alkyl chains: reporters for host-guest interactions

S3 – 251

Matei Raicopol, **Luisa Pilan** (University Politehnica of Bucharest, Romania)

Controlled electrochemical functionalization of graphene electrodes for optimized biosensing platforms

S3 – 258

Mihaela Avadanei ("P. Poni" Institute of Macromolecular Chemistry, Iasi, Romania)

Depth profiling of acrylamide derivatives photografted on polymeric supports

S3 – 260

Maria Mihaly (University Politehnica of Bucharest, Romania), Adina Roxana Petcu, Elena Adina Rogozea, Cosmina Andreea Lazar, Daniela, Cadar, Daniela Simina Stefan

Dyes removal from wastewater by tandem adsorption-photodegradation technique

S3 – 283

Bianca Maranescu (Institute of Chemistry Timisoara of the Romanian Academy, Timisoara, Romania), Nicoleta Plesu, Aurelia Visa, Valentin Maranescu

Carboxyphosphonate metal accurate corrosion inhibitor for iron in diluted nitric acid saline solution

S3 – 287

Mihaela Popescu (University Politehnica of Bucharest, Romania), Petrica Iancu, Adrian V. Crisciu, Valentin Plesu

Heat capacity models for solutions of some natural products in supercritical CO₂

S3 – 332

Catalina Badica (University of Craiova, Romania), Madalina Duinea, Bianca Ghejan, Ana-Maria Sandu, Lucian M. Birsă, Paul Chirita

The oxidative dissolution of pyrite in the presence of 4-fenil-2-N-morfolinil-tiazol

S3 – 346

Mihaela Buga (National Institute for Cryogenics and Isotopic Technologies ICSI-Rm. Valcea, Romania), Alexandru RizoIU, Constantin Bubulinca, Mihai Balan, Alin Chitu, Stanica Enache, Mihai Varlam

Beyond the hype: the new path for ICSI's advanced lithium-ion batteries research in Romania

S3 – 357

Sergiu Sima (University Politehnica of Bucharest, Romania), Virgil Popescu-Săruleşteanu, George Rizea, Catinca Secuianu

Phase behaviour for binary systems of CO₂ + naphthenes at high pressures

S3 – 361

Radu-Florian Ene (National R&D Institute for Cryogenic and Isotopic Technologies ICIT Rm. Valcea, Romania), Mihai Balan, Alexandru Ciocan, Alexandru RizoIU, Andrei Constantin, Mihaela Buga, Mihai Varlam

Comparative technical and economical assessment of lithium batteries chemistries

S3 – 375

Mariana Apostoiu Popescu (University POLITEHNICA of Bucharest), Veronica Anastasoae, George-Octavian Buica, Eleonora-Mihaela Ungureanu, Alexandra Oprisanu, Mihaela Cristea,

New Azulene Modified Electrodes for Heavy Metal Ion Complexation

New Concepts in Chemical and Biochemical Engineering

POSTER PRESENTATIONS

Section 4

Friday 8 September 2017

Time: 15:00 – 19:00

S4 – 1

Iuliana Dumitru (University Politehnica of Bucharest, Romania), Oana Cristina Pârvulescu, Tiberiu Dinu Danciu, Tănase Dobre, Cristian Răducanu

Air drying of aromatic plants coupled with recovery of volatile compounds

S4 – 4

Gabriela Isopencu (University Politehnica of Bucharest, Romania), Valentina Gogulancea, Ionuț Banu, Vasile Lavric

Experimental dynamics of Lactobacillus sp. and E. coli strains co-culture

S4 – 26

Elena Viorica Ioniță (University Politehnica of Bucharest, Romania), Diana Maria Banu

The modelling of dams' stability considering a seismic solicitation for the tailings ponds of Rosia Montana mining region, Romania

S4 – 33

Ana Domnica-Mărincean (Babes-Bolyai University, Cluj-Napoca, Romania), Sorin-Aurel Dorneanu, Petru Ilea

Optimisation of hydrogen peroxide electrosynthesis using a modified Micro Flow Cell filter press reactor equipped with a RVC cathode

S4 – 131

Doinița Roxana Cioroiu (University Politehnica of Bucharest, Romania), Claudia Irina Koncsag, Oana Cristina Pârvulescu, Tănase Dobre

Researches concerning chemical and enzymatic hydrolysis of some Black Sea algae biomass

S4 – 150

Alina-Georgiana Ciufu (University Politehnica of Bucharest, Romania), Timur Chis, Oana Parvulescu, Tanase Dobre

Modeling and experimental investigation of oil sorption from water surface with fibrous sorbents

S4 – 158

Vasile Lavric (University Politehnica of Bucharest, Romania), Ioan Călinescu, Alexandru Vlaicu, Petre Chipurici

Modeling microwave heating in a multimod applicator – Comsol approach

S4 – 167

Sergiu Adrian Aciu (University Politehnica of Bucharest, Romania), Adina Gavrilă, Oana Cristina Pârvulescu, Petre Chipurici, Tănase Dobre

Results from the practice in wood charcoal production

S4 – 171

Claudia Ana-Maria Patrichi (University Politehnica of Bucharest, Romania), Claudia Irina Koncsag, Tănase Dobre

Modelling of ABE synthesis coupled with pervaporation with solvents selective membrane

S4 – 212

Paula Postelnicescu, **Anca Mădălina Dumitrescu** (University Politehnica of Bucharest, Romania), George Dogărescu

Kinetic study for ibuprofen controlled release from amine-functionalized mesoporous silica supports

S4 – 215

Cătălin Bogdan Matei (University Politehnica of Bucharest, Romania), Sanda Velea, Ana-Maria Gălan, Emil Stepan, Daniela Stilpeanu, Victor Covaliov, Alexandru Woinaroschy

Mathematical modelling of anaerobic co-digestion of defatted Chlorella vulgaris microalgae biomass and food waste

S4 – 216

Adriana Monica Radu (University Politehnica of Bucharest, Romania), SAI-Juboori Ali Amer Yahya, Leonard Safta, Ana Maria Josceanu, Daniel Dinculescu, Vasile Lavric

Extended model for nitrophenols nonlinear repartition in polar water-octanol mixtures

S4 – 226

Olga Covaliova (State University of Moldova), Victor Covaliov

Integrated process of biogas absorbtion purification and utilization of extracted CO₂ for microalgae cultivation

S4 – 277

Alma-Valentina Broșteanu (University Politehnica of Bucharest, Romania), Anicuța Stoica Guzun, Marta Stroescu, Elena Zaharia

Influence of drying conditions on the oil yield obtained from sea buckthorn residues

S4 – 284

Ancuța-Alexandra Neagu (University Politehnica of Bucharest, Romania), Valentin Pleșu, Gheorghe Bumbac, Petrica Iancu, Alexandra-Elena Bonet-Ruiz, Jordi Bonet-Ruiz

Energy efficiency of oil refining processes

S4 – 285

Giorgiana-Dana Barbu (University Politehnica of Bucharest, Romania), Diana-Adela Berinde, Valentin Pleșu, Adrian Victor Crisciu, Nicoleta Gabriela Ștefan

Experimental determination of flash point and vapor pressure for solketal esters

S4 – 289

Alexandra Mocanu (University Politehnica of Bucharest, Romania), Gabriela Isopencu, Cristina Busuioc, Marta Stroescu, Anicuța Stoica-Guzun

Antimicrobial activity of bacterial cellulose-zinc oxide composites containing propolis extracts

S4 – 296

Alin Alexandru Enache (University Politehnica of Bucharest, Romania), Laurent David, Jean-Pierre Puaux, Ionuț Banu, Grigore Bozga

A kinetic study of chitosan coagulation from aqueous solutions

S4 – 301

Cristiana Luminița Gîjiu, Cristina Mișcoi, Daniel Dinculescu, **Raluca Isopescu** (University Politehnica of Bucharest, Romania)

Enhancing bioethanol production using membrane tools

S4 – 316

Ancuța Roxana Trifoi (SC Salmed Farma SRL, Research Institute for Auxiliary Organic Products, Mediaș, Romania), Delia Dobre, Timea Gherman, Maria Râpă, Rami Doukeh

Purification and concentration of resveratrol extracts from grape skin by adsorption onto polymeric resin

S4 – 334

Daniel Ighigeanu (National Institute for Lasers, Plasma and Radiation Physics, Măgurele, Romania), Diana Martin, Ioan Calinescu, Constantin Matei

Evaluating and controlling the absorbed power of 2.45 GHz microwaves in an innovative installation for the extraction of essential oils and pre-treatments of fresh plants and dry plants with added water

S4 – 339

Larisa Podelenczki (Babes-Bolyai University, Cluj-Napoca, Romania), Sorin Aurel Dorneanu, Marius Purcar, Petru Ilea

Manganese electrodeposition from aqueous sulphate solution. Fundamental and applicative aspects

S4 – 341

Mariana Patrascu (R&D, CHEMSPEED Ltd, Bucharest, Romania), Sylviu Kumbakisaka, Durmuş Alpaslan Kaya, Elena Olaret

Investigation in the extraction process for fabrication of the Lavender essential oil

S4 – 350

Bianca-Cristina Badea (University POLITEHNICA of Bucharest), Lavinia-Ioana Petre, Petrica Iancu, Valentin Pleşu, Gheorghe Bumbac

LNG simulation with mixed refrigerants cycles

S4 – 355

Alexandra Tucaliuc (“Gheorghe Asachi” Technical University of Iasi, Romania), Mădălina Poştaru, Alexandra Cristina Blaga, Dan Caşcaval, Anca Irina Galaction

Synergic pertraction of pantothenic acid

S4 – 356

Ildikó-Hajnalka Kuzman (Universiy POLITEHNICA of Bucharest, Romania), Zsolt Bodor, Ildikó Miklóssy, Szabolcs Lányi

*Succinic acid production by optimization of fermentation conditions for *Basfia succiniproducens**

S4 – 358

Lenuta Kloetzer (“Gheorghe Asachi” Technical University of Iasi, Romania), Alexandra Blaga, Anca-Irina Galaction, Andreea-Roxana Ilica, Dan Caşcaval

Separation of rosmarinic acid with a mixture of D2EHPA and Amberlite LA-2

Monitoring & Environmental Protection

POSTER PRESENTATIONS

Section 5

Thursday 7 September 2017

Time: 9:00 – 13:00

S5 – 15

Ana Despina Ionescu (National Chemical-Pharmaceutical for Research and Development Institute, Bucharest, Romania), Angela Casarica, Elena Boca

Biotechnological studies on some plant species able to be used for a constructed wetland, created for the industrial wastewater remediation.

S5 – 35

Rodica Mihaela Frîncu (INCDCP ICECHIM Călărași Subsidiary), Olga Iulian

Organic pollution in the Lower Danube and Romanian Tributaries (1996-2014)

S5 – 37

Teodor Sandu (INCDCP-ICECHIM, Polymer Department, Bucharest, Romania), Andrei Sârbu, Rodica Zavoianu, Mihaela Florea, Corina Bradu, Anita Laura Radu, Anamaria Zaharia, Steluta Apostol, Bogdan Cursaru, Magdalena Adriana Ladaniuc

Thermal treatment effect on the final properties of ceramic foams containing red mud

S5 – 63

Réka Keresztes (Sapientia Hungarian University of Transylvania, Miercurea Ciuc, Romania), Róbert Szép, Ágnes Keresztesi, Beáta Akácsos

Air pollution in Ciuc basin over 6-year period: tropospheric ozone temporal variations and relationship to atmospheric oxidation

S5 – 107

Mihai Eftimie (University Politehnica of Bucharest, Romania), Madelene Dăncilă, Cristina Modrogan, Cristina Orbeci, Alina Melinescu

Recovery of CRT glass waste as photocatalytic substrate

S5 – 119

Vasilica Vasile (INCDCP-URBAN-INCERC, Bucharest, Romania), Alina Dima, Mihaela Ion

Indoor school environment: how healthy is it?

S5 – 126

Cristina-Emanuela Enascuta (National Research & Development Institute for Chemistry and Petrochemistry ICECHIM, Bucharest, Romania), Elena-Emilia Oprescu, Emil Stepan, Elena Radu, Gabriel Vasilevici, Ana-Maria Galan, Sanda Velea, Vasile Lavric

Protein hydrolysates production from renewable biomass wastes

S5 – 156

Cristina Modroga (University Politehnica of Bucharest, Romania), Oanamari Daniela Orbulet, Madelene Dancila, Constantin Bobirica, Cristina Orbeci, Cristina Costache

Removal of some heavy metals from industrial wastewaters by ion exchange method

S5 – 159

Gudovan Dragos (University POLITEHNICA of Bucharest, Romania), Sava Daniel, Gudovan Iulia Alexandra, Sonmez Maria, Fikai Anton, Andronescu Ecaterina

Modified graphene oxide for environmental applications

S5 – 166

Irina Popescu ("Petru Poni" Institute of Macromolecular Chemistry, Romania), Dana Mihaela Suflet, Irina Mihaela Pelin

Microspheres base on maleic copolymers for dye adsorption

S5 – 173

Muhammad Abyan Dzaka (Institute of Technology Sepuluh Nopember, Indonesia), Ailin Muvidah

Collaboration test on leaves of mahogany (Swietenia Macrophylla), croton (Codiaeum Variegatum), and snake plant (Sansevieria Trifasciata) towards absorption of exhaust emissions of carbon monoxide and lead in a motor vehicle through mask medium

S5 – 181

V. Satulu, B. Mitu, **S. Vizireanu** (National Institute for Lasers, Plasma and Radiation Physics, Bucharest, Romania), A.M. Pandele, S.I. Voicu, L. Kravets, G. Dinescu

Synthesis of composite membranes by RF magnetron sputtering

S5 – 183

Oanamari Daniela Orbuleț (University Politehnica of Bucharest, Romania), Cristina Modroga, Constantin Bobirică, Liliana Bobirică, Cristina Orbeci, Cristina Costache

Application of static and dynamic kinetic models for evaluating phosphate ions sorption processes in soil

S5 – 188

Denisa Fikai (University Politehnica of Bucharest, Romania), Maria Sonmez, Ioana Lavinia Ardelean, Roxana Trusca, Laurenția Alexandrescu, Doina Constantinescu, Anton Fikai, Ecaterina Andronescu

Surface modification of hemp fibers for improving physico-mechanical and thermal resistance of recycled PET composites

S5 – 197

Elena-Emilia Oprescu (National Research & Development Institute for Chemistry and Petrochemistry ICECHIM, Bucharest, Romania), Sanda Velea, Ana-Maria Galan, Adrian Radu, Alin Nicolae Cristian Vintila, Mihaela Bombos, Gabriel Vasilevici, Dorin Bombos

Eco friendly gasoline additives obtained by hydrogenation of the furan ring

S5 – 203

Levente Levei (INCDO-INOE 2000, Research Institute for Analytical Instrumentation, Cluj-Napoca, Romania), Maria-Alexandra Hoaghia, Claudiu Tanaselia, Alexandru Ozunu

Metal uptake by coltsfoot (Tussilago Farfara) spontaneously grown on mine tailings

S5 – 214

Sanda Velea (National Research & Development Institute for Chemistry and Petrochemistry ICECHIM, Bucharest, Romania), Ana-Maria Galan, Alin Cristian Nicolae Vintila, Olga Covaliova, Luiza Capra, Cristina Emanuela Enascuta, Elena Radu

Microalgae cultivation using liquid digestate as growth medium

S5 – 222

Ana Moldovan, Emilia Gîlcă, Vanda Fuss, Anamaria Török, Cecilia Roman

Removal of dyes from aqueous solution by activated carbon

S5 – 233

Annamária Becze (University Politehnica of Bucharest, Romania), Éva Boglárka Vincze, Tünde Péter, Szabolcs Lányi, Gyöngyvér Mara

Evaluation of structural carbohydrate degrading capacity of PGP bacterial strains using different methods

S5 – 236

Dezső Róbert Fiko (University Politehnica of Bucharest, Romania), Szabolcs Szilveszter, Erika Kovács, Tamás Felföldi, István Máthé

Phenolic wastewater treatment potential of bacteria isolated from landfill leachate treating bioreactor

S5 – 240

Éva Boglárka Vincze (Sapientia Hungarian University of Transylvania, Miercurea Ciuc, Romania), Annamária Becze, Csilla Albert, Gyöngyvér Mara

Uptake of heavy metals in maize and wheat plants in presence of plant growth promoting (PGP) bacteria

S5 – 242

Luiza Capra (University Politehnica of Bucharest, Romania), Mihaela Manolache, Ion Ion, Rusandica Stoica, Georgeta Ivan, Alina Catrinel Ion

Adsorption of Sb (III) on exfoliated graphite nanoplatelets (xGnP).

S5 – 247

Daniela Simina Stefan (University Politehnica of Bucharest, Romania), Cristina Orbeci, Maria Mihaly, Mircea Stefan

Methods to removal of hydrogen sulfide, ammonium, manganese and iron from natural water

S5 – 306

Adrian Armeanu (National Research and Development Institute for Cryogenics and Isotopic Technologies), Dan Mocanu, Violeta Niculescu, Elena David, Marius Miricioiu

Development of hydrogen-enriched gas production systems from renewable sources with applications in clean energy generation

S5 – 342

Ildiko Anger (National R&D Institute for Nonferrous and Rare Metals, Pantelimon, Romania), Eniko Volceanov, Georgiana Ploeanu, L. Ilie, Lavinia Gabriela Popescu, Georgiana Alexandra Moise

Impact of using ladle slag for acid soil remediation in agriculture

S5 - 344

Madalina Ignat (The National Research & Development Institute for Textile and Leather, Division Leather and Footwear Research Institute (INCDTP-ICPI), Bucharest, Romania), Madalina Popescu, Carmen Gaidau, Radu Mihai, Daniela Berechet, Ciprian Chelaru, Madalina Mihalache

Photocatalytic nanoparticles for tannery wastewater depollution

S5 – 345

Chelaru Ciprian (National Research and Development Institute for Textiles and Leather - Division Leather and Footwear Research Institute), Macovescu Gabriela, Ignat Madalina, Gurau Dana

Chromium VI validation method for tanned leather

S5 – 363

Mihaela Ion, Vasilica Vasile, Alina Dima, Mariana Cioncu-Puenea, Cora Stamate

Aspects regarding the assessment of the environmental performance of waterproofing systems, integrated components in construction

S5 – 371

Andries Maria, Popescu Larisa, Lacramioara Oprica, Liviu Sacarescu, Dorina Creanga

Study on the interface phenomena of citrate/Ag colloidal nanosystems with some microorganisms

S5 – 372

Popescu Larisa, Andrieş Maria, Săcărescu Liviu, Grigoraş Marian, Lupu Nicoleta, Creangă Dorina

Synthesis and characterization of magnetic nanoparticles as catalysts for the removal of wastewater pollutants

New Materials and Nanomaterials

POSTER PRESENTATIONS

Section 6

Friday 8 September 2017

Time: 09:00 – 13:00

S6 – 24

Fawzia Sha'at (National Institute for Chemical-Pharmaceutical Research&Development – ICCF, Bucharest), Daniela-Crina Salceanu, Ramona-Daniela Pavaloiu, Filis Curti, Cristina Hlevca

Preparation and characterization (entrapment efficiency) of polymeric multicomponent systems containing cardiovascular APIs

S6 – 27

Amanpreet Kaur (Department of Chemistry, Indian Institute of Technology, New Delhi, India), Ravi Shankar

Structure directing role of amines and water molecules in the self-assembly of polyoxomolybdates

S6 – 42

Mihai Iordoc (National Institute for Research and Development in Electrical Engineering INC DIE ICPE-CA), Paula Barbu, Sorin Vizireanu, Gimi Rimbu, Adela Bara

Advanced electrodes for supercapacitors based on aligned graphenes

S6 – 43

Paula BARBU, (National Institute for Research and Development in Electrical Engineering INC DIE ICPE-CA), Antonela Banciu, Mihai Iordoc, Aristofan Teisanu, Gimi Rimbu, Adela Bara

Gel electrolyte based supercapacitors with low self discharge effect

S6 – 44

Antonela Banciu (National Institute for Research and Development in Electrical Engineering INC DIE ICPE-CA), Aristofan Teisanu, Mihai Iordoc, Paula Barbu, Gimi Rimbu, Adela Bara

Organic electrolyte based supercapacitors designed for higher voltage

S6 – 56

Aleksandra Bužarovska (Faculty of Technology and Metallurgy, Sts Cyril and Methodius University, Macedonia)

Preparation and characterization of poly(-caprolactone)/ZnO foams for tissue engineering applications

S6 – 59

Ana Maria Persello (Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Bucharest, Romania), Eugenia Eftimie Totu, Madalina Gabriela Amuzan, Aurelia Cristina Nechifor, Ibrahim Isildak, Corina Marilena Cristache

Considerations on structural characteristics of 3D printing nanocomposite materials for dental applications

S6 – 64

Angela Casarica (National Chemical-Pharmaceutical for Research and Development Institute, Bucharest, Romania), Delia Maria Jitea, Ana Despina Ionescu, Corina Bubueanu, Maria Petrescu

*Biosynthesis of Levan by using the strain *Zymomonas mobilis* ATCC 10988 in static and shaking fermentation*

S6 – 72

Ramona-Daniela Păvăloiu (National Institute for Research and Development in Electrical Engineering INCIE ICPE-CA), Corina-Elena Bubueanu, Fawzia Sha'at, Filis Curti, Cristina Hlevca

*Formulation and optimization of liposomes containing *Sambucus ebulus* leaves extract*

S6 – 106

Ghassan.F. Al-Samarai (Department of Biology, College of Education, University of Samarra, Samarra, Iraq), Rana.I. Khaleel, Haroon.H. Al-Mazroee

Nanoparticles: Scope and application as potential alternative of agriculture pesticides

S6 – 163

Marius Miricioiu (National R&D Institute for Cryogenics and Isotopic Technologies - ICSI Rm. Valcea, Romania), Violeta Niculescu, Gheorghe Nechifor

PSF/MCM-41 mixed matrix membranes prepared for O₂/N₂ separation

S6 – 178

Alina Elena Coman (University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science), Gheorghe Hubca

The influence of filler nature on mechanical and electrical properties of PVC composite

S6 – 184

Daniel-Cristian Ioan (University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science), Grațîela Teodora Tihan, Roxana Gabriela Zgârian, Mihaela Violeta Ghica, Mădălina Georgiana Albu Kaya, Cristina Dinu Pîrvu, Ileana Rău

New collagen-piroxicam based materials for oral applications

S6 – 187

Paul Stanescu (University Politehnica of Bucharest, Advanced Polymer Materials Group), Catalin Zaharia, Ionut-Cristian Radu, Eugenia Vasile, Ariana Hudita, Bianca Galateanu, Horia Iovu

Design and characterization of novel composite materials with inorganic clay content for biomedical use

S6 – 189

Irina M. Pelin (University Politehnica of Bucharest, Advanced Polymer Materials Group), Irina Popescu, Dana M. Suflet

New curdlan derivatives with quaternary ammonium groups

S6 – 190

Irina Popescu ("Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania), Irina M. Pelin

Micro/nano capsules based of ionic curdlan derivatives

S6 – 225

Edina Rusen (University Politehnica of Bucharest, Department of Bioresources and Polymer Science), Aurel Diacon, Alexandra Mocanu, Celina Damian, Raluca Gavrilă, Adrian Dinescu

New type of conductive materials based on carbon fibers

S6 – 227

R. M. Senin (University Politehnica of Bucharest), R. Stoica, R. Ganea, I. Ion, A. C. Ion

Adsorptive removal of bisphenol A (BPA) from aqueous solution by carbon nanomaterials of zero-dimension

S6 – 235

Eugenia Vasile (University Politehnica of Bucharest), Ionut-Cristian Radu, Catalin Zaharia, Bianca Galateanu, Ariana Hudita, Celina Damian

Composite hydrogels based on functionalized magnetite and acrylamide for tissue engineering

S6 – 238

Mirela-Fernanda Zaltariov ("Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania), Maria Cazacu, Sergiu Shova, Mihaela Avadanei

One dimensional coordination polymer built by hexamanganese (III) clusters and a flexible dicarboxylate linker: structural characterization and self-assembly ability

S6 – 243

Elena-Laura Ursu (Centre of Advanced Research in Bionanoconjugates and Biopolymers, "Petru Poni" Institute of Macromolecular Chemistry), Gabriela Pricope, Alexandru Rotaru

Single-walled carbon nanotubes hybrid hydrogels for biomedical applications

S6 – 245

Cristina Banciu (National Institute for Research and Development in Electrical Engineering ICPE-CA), Adela Bara, Marius Lungulescu, Virgil Marinescu, Elena Chitanu

Three-dimensional graphene structures preparation and characterization

S6 – 264

Natalita Bordei (Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest), Ioana Lacatusu, Nicoleta Badea, Aurelia Meghea, Manea Stefan, Mariana Popescu

The valuable effect of vegetable oils in developing nanostructured lipid carriers loaded with lipophilic extract

S6 – 267

Bianca Galateanu (Department of Biochemistry and Molecular Biology, University of Bucharest), Ariana Hudita, Andrei Bogdan Stoian, Marieta Costache

Biological performance of silver nanoparticles coated novel CoCrNbMoZr alloy

S6 – 270

A. Serafim (Advanced Polymer Materials Group, University Politehnica of Bucharest, Romania), S. Cecoltan, E. Vasile, A. Finne Wistrand, J. Fagerland, K. Mustafa, S. Suliman, A. Rashad, I.C. Stancu

3D polyester scaffold coated with mineral loaded hydrogel for tissue engineering

S6 – 275

Bianca Galateanu (Department of Biochemistry and Molecular Biology, University of Bucharest), Ariana Hudita, Ionut Radu, Mirela Serban, Eugenia Vasile, Catalin Zaharia, Marieta Costache

Magnetic stimulation of MC3T3-E1 cells improves their osteogenic potential inside 3D biomatrices

S6 – 280

Raluca Ianchis (R-D Institute for Chemistry and Petrochemistry ICECHIM – Bucharest), Ioana Catalina Gifu, Claudia Mihaela Ninciuleanu, Madalina Icriverzi, Paula Ecaterina Florian, Anca Malina Roseanu, Elvira Alexandrescu, Cristina Lavinia Nistor, Sabina Georgiana Nitu, Cristian Petcu

Synthesis and characterization of salecan/poly(methacrylic acid)/clay hydrogel nanocomposites

S6 – 282

Aurelia Visa (Institute of Chemistry Timișoara of the Romanian Academy), Bianca Maranescu, Alexandra Bucur

Synthesis and characterization of a novel coordination polymer starting from zinc salt

S6 – 293

Adi Ghebaur (Advanced Polymer Materials Group, University Politehnica of Bucharest), Mariana Ionita, George Mihail Vlasceanu, Horia Iovu

Characterization methods for functionalized graphene oxide used in biosensors field

S6 – 294

Gabriela Pricope ("Petru Poni" Institute of Macromolecular Chemistry, Romanian Academy), Monica Serdaru, Laura Ursu, Mariana Pinteala and Alexandru Rotaru

Cyclodextrin inclusion complex of indoliziny-pyridinium salt as pH-sensitive fluorescent dye for cell staining

S6 – 299

Petre Ionita (University of Bucharest, Faculty of Chemistry), Anca G. Coman, Codruta C. Paraschivescu, Anca Paun, Andreea Diac, Niculina D. Hadade, Laurent Jouffret, Arnaud Gautier, Mihaela Matache

Synthesis, characterization and evaluation of profluorescent nitroxides as dual probes

S6 – 307

Maria Demeter (National Institute for Lasers, Plasma and Radiation Physics (INFLPR)), Catalin Vancea, Ion Calina, Anca Scarisoreanu, Marin Micuț, Viorica Meltzer

E-beam radiation synthesis of xanthan gum-carboxymethylcellulose- graphene oxide composite hydrogels

S6 – 309

F. Curti (University Politehnica of Bucharest, Faculty of Medical Engineering,), D.M. Dragusin, S. Cecoltan, E. Vasile, I.C. Stancu

Biocomposites based on biogenous mineral for bone tissue regeneration

S6 – 310

Stefania Marin (Collagen Department, INCDTP – Leather and Footwear Research Institute), Madalina Georgiana Albu Kaya, Durmus Alpaslan Kaya, Zenovia Moldovan, Elena Danila, Ciprian Chelaru

The influence of laurel oil microcapsules embedded into collagen wound dressings

S6 – 314

Minodora Maria Marin (Collagen Department, INCDTP – Leather and Footwear Research Institute), Alice Geanina Simonca, Ileana Rau, Mihaela Violeta Ghica, Madalina Georgiana Albu Kaya, Ciprian Chelaru, Cristina Dinu-Pirvu

New treatment for dentistry regeneration based on metronidazole release from collagen/strontium sponges

S6 – 319

Cristina Lavinia Nistor (National Research &Development Institute for Chemistry and Petrochemistry – ICECHIM), Otilia Ludmila Cinteza, Sabina Georgiana Nitu, Cristian Petcu, Raluca Ianchis, Catalina Ioana Gifu, Claudia Mihaela Ninciuleanu, Elvira Alexandrescu

Studies on electrochemical fabrication of stable aqueous dispersions of silver nanoparticles, under protection of some polymers and electrolytes

S6 – 329

Teddy Tite (University Politehnica of Bucharest, Faculty of Medical Engineering), Luisa Pilan, George Mihail Vlăsceanu, Jorge S. Burns, Mariana Ioniță

Electrochemical graphene biosensor for DNA detection in biomedical applications

S6 – 362

Alina Dima (INCD URBAN-INCERC), Vasilica Vasile, Mihaela Ion

Innovative polymer-based coatings for anti-graffiti protection

S6 – 364

Seung-Kyu Park (Department of Advanced Materials, Hannam University, South Korea), Juhyung Jung, Xuecheng Teng, Prem Prabhakaran, Kwang-Sup Lee

3D Microfabrication by using vinyl-functionalized Cd-free Quantum dots

S6 – 369

Simona Ciobotarescu ("Gheorghe Asachi" Technical University of Iași, Department of Natural and Synthetic Polymers, Iași, Romania), Elena-Luiza Epure, Cristina-Maria Herghiligi, Nicolae Hurduc

Spatial arrangement of azobenzene substituted polysiloxane chains

S6 – 370

Simona Ciobotarescu ("Gheorghe Asachi" Technical University of Iași, Department of Natural and Synthetic Polymers, Iași, Romania), Cristina-Maria Herghiligi, Norica Nichita, Dan Scutaru, Nicolae Hurduc

Azo-polymers use in cell culture development

S6 – 006

George Stănescu (University Politehnica of Bucharest), Alina Bădănoiu, Adrian-Ionuț Nicoară

Waste valorization in the manufacture of aerated autoclaved concrete

S6 – 007

Preetshikha, Munish Gupta, **B.S. Randhawa** (Guru Nanak Dev University, India)

Structural, morphological and magnetic properties of Cr doped La_{0.9}Ce_{0.1}FeO₃ nanoferrites synthesized by hydrothermal route

S6 – 011

Munish Gupta (Guru Nanak Dev University, India), Anu, R.K. Mudsainiyan, B.S. Randhawa

Microstructural properties of pure and Li doped Cd ferrites (CdLi_xFe_(2-x)O_{4-y}) fabricated by co-precipitation method

S6 – 019

Gennadiy N. Kozhemyakin (Shubnikov Institute of Crystallography of Federal Scientific Research Centre “Crystallography and Photonics” of Russian Academy of Sciences), S.Y. Kovalev, O.N. Ivanov, O.N. Soklakova

Growth of nanocrystals from amorphous Bi

S6 – 028

Ioana Vlăsceanu (University Politehnica of Bucharest), Larisa Meliță

Aerogel, a high performance material for thermal insulation

S6 – 041

Nicoleta Cornei (“Al. I. Cuza” University, Chemistry Department, Romania), Mihail-Liviu Craus, Carmen Mîță, Viorel Dobrea

Effects of scandium doping concentration on the magnetoresistance properties in $La_{0.54}Nd_{0.11}Sr_{0.35}MnO_3$ manganites

S6 – 048

T. Mălăeru, **Virgil Marinescu** (National Institute for Electrical Engineering INCDIE ICPE-CA, Romania), E.A. Pătroi, G. Georgescu, B-G. Sbârcea

Influence of the synthesis parameters on structural, optical and magnetic properties of ZnO and Mn doped ZnO nanoparticles

S6 – 051

T. Mălăeru, **Virgil Marinescu** (National Institute for Electrical Engineering INCDIE ICPE-CA, Romania), G. Georgescu, E.A. Pătroi, E. Manta

Synthesis and characterization of Fe_3O_4 magnetic nanofluid in vegetable oil

S6 – 057

Madalina Ciobanu (“Ilie Murgulescu” Institute of Physical Chemistry, Romanian Academy, Romania), G. Petcu, F. Papa, S. Petrescu, D. Culita, S. Preda, V. Parvulescu

SBA-15 mesoporous silica modified with metal ions. Influence of synthesis conditions on support properties and metals photocatalytic activity

S6 – 067

Krivoshapkina E.F. (Institute of Chemistry of Komi SC UB RAS, Russia), Krivoshapkin P.V., Vedyagin A.A.

Development of membrane-catalytic systems with nanostructured oxides layer for the integrated treatment of waste gases

S6 – 076

Pavel Krivoshapkin (ITMO University, Russia), Krivoshapkina E.F., Mikhaylov V.I., Martakov I.S., Torlopov M.A.

Surface modification of ceramic, carbon and cellulose nanomaterials

S6 – 095

Carmen Mîţă, Mihail-Liviu Craus, **Nicoleta Cornei** ("Al. I. Cuza" University, Iasi, Romania), Viorel Dobrea

Spin glass influence on magnetoresistance behaviour in $La_{0.54}Nd_{0.11}Ca_{0.35}Mn_{1-x}Cu_xO_3$ manganites

S6 – 109

Constantin Virlan ("Al. I. Cuza" University, Iasi, Romania), Mihail-Liviu Craus, Ovidiu Caltun, Aurel Pui

Analysis of magnetic and electrical properties of Ni-Cu-Zn tertiary ferrites

S6 – 110

Sorescu Ana-Alexandra (The National Research&Development Institute for Chemistry and Petrochemistry – ICECHIM, Romania), Alexandrina Nuta, Ioana-Raluca Suica-Bunghez, Cristina Lavinia Nistor, Rodica-Mariana Ion

Silver nanoparticles - zinc phthalocyanine nanoaggregates

S6 – 124

Andrei-Vlad Zafir (University Politehnica of Bucharest), Georgeta Voicu, Alina-Ioana Bădănoiu, Ovidiu Oprea, Roxana Truşcă

The coating of silica fume with titanium oxide nanoparticles and the effect on photocatalytic and pozzolanic activities

S6 – 127

Cristina Dima (Văduva) (University Politehnica of Bucharest), Alina Bădănoiu, Ştefania Stoleriu, Diana Luca

Influence of various types of waste on the main properties of gypsum plasters

S6 – 128

Andrei-Dan Busuioc (University Politehnica of Bucharest), Teodor Vişan

SnO_2 powders obtained by wet chemistry methods

S6 – 129

Cristina Busuioc (University Politehnica of Bucharest), Sorin Jinga, Eugen Pavel

Vitroceramic disks for high density data storage

S6 – 132

Adrian-Ionuţ Nicoară (University Politehnica of Bucharest), Alina Bădănoiu, Georgeta Voicu, Magdalena Bălănoiu, Alexandra Mathias

Synthesis of alkali activated mortars with intumescent properties

S6 – 179

Adelina Andelescu, Maria Andreea Nistor, **Simona Gabriela Muntean** (Institute of Chemistry Timisoara of Romanian Academy), Robert Ianos, Cornelia Pacurariu

Iron oxide/carbon nanocomposites as effective adsorbents for heavy metal ions removal

S6 – 182

Ioana Ardelean (University POLITEHNICA of Bucharest), Denisa Ficaï, Alina Holban, Carmen Mariana Chifiriuc, Bogdan Vasile Anton Ficaï, Roxana Trusca, Ecaterina Andronescu

Preparation, characterization and antimicrobial activities of chitosan/usnic acid/ZnO composite

S6 – 191

Dragos Gudovan, **Denisa Ficaï** (University Politehnica of Bucharest), Iulia Alexandra Gudovan, Paul Balaure, Roxana Doina Trusca, Madalina Georgiana Albu-Kaya, Valentina Mitran, Anisoara Cimpean, Anton Ficaï, Ecaterina Andronescu

3D-printed collagen-hydroxyapatite scaffolds modified with essential oils with anti-inflammatory/antibiotic properties

S6 – 200

Qing Zhang (Beihang University, China), Tengyi Liu, Chao Li, Peng Diao

Cu₂O Nanowires as a high-efficiency photocathode for photoelectrochemical hydrogen evolution reaction

S6 – 218

Radu Claudiu Fierascu (The National Institute for Research & Development in Chemistry and Petrochemistry – ICECHIM), Irina Fierascu, Lia-Mara Ditu

Metal/hydroxyapatite architectures for cultural heritage conservation

S6 – 228

Nicoleta Cioateră (University of Craiova), Simona Șomăcescu, C.I. Spînu

New composite materials for SOFC anode

New Materials and Nanomaterials

POSTER PRESENTATIONS

Section 6

Friday 8 September 2017

Time: 15.00 – 19.00

S6 – 249

Elena Chitanu (National Institute for Research and Development in Electrical Engineering INC DIE ICPE-CA), Cristina Banciu, Gabriela Sbarcea, Virgil Marinescu, Adela Bara

Hydrothermal synthesis and characterization of hybrid ZnO/3D graphene structure

S6 – 250

Elena Chitanu (National Institute for Research and Development in Electrical Engineering INC DIE ICPE-CA), Mirela Maria Codescu, Wilhelm Kappel, Delia Patroi, Eugen Manta

Exchange hardened ferrimagnetic nanocomposites using chemical coprecipitation

S6 – 262

Oana Fufă (Lasers Department, National Institute for Laser, Plasma and Radiation Physics), G. Popescu-Pelin, M. Socol, I. Zgură, R.C. Popescu, A.M. Grumezescu, E. Andronescu, G. Socol

Nanocomposite CaPs/polymer coatings for titanium implants

S6 – 271

Alexandru Mihai Grumezescu (University Politehnica of Bucharest), Alexandra Elena Oprea, Anton Ficai, Bogdan Stefan Vasile, Roxana Trusca, Alina Maria Holban, Ecaterina Andronescu

Electrospun recycled PET: improving biological properties by addition of silver nanoparticles

S6 – 272

Alexandra Elena Oprea (University Politehnica of Bucharest), Alexandru Mihai Grumezescu, Anton Ficai, Bogdan Stefan Vasile, Roxana Trusca, Alina Maria Holban, Ecaterina Andronescu

Nanobioactive surfaces for the modulation of microbial biofilm

S6 – 273

Alexandru Mihai Grumezescu (University Politehnica of Bucharest), Alexandra Elena Oprea, Denisa Ficai, Anton Ficai, Bogdan Stefan Vasile, Roxana Trusca, Alina Maria Holban, Ecaterina Andronescu

TiO₂ nanoparticles as UV filters

S6 – 274

Rahul Kumar Mudsainiyan (Department of Chemistry, Hindu College, Amritsar, India)

Sol-gel route and improvisation in physico-chemical, structural, magnetic and electrical properties of $\text{BaCo}_{x/2}\text{Zn}_{x/2}\text{Zr}_x\text{Fe}_{(12-2x)}\text{O}_{19}$

S6 – 279

Ficai Anton (University Politehnica of Bucharest), Ficai Denisa, Banu Geanina, Costache Nicolae

Exploring chemical binary systems for developing an equipment incorporating a patented technology for producing nanopowders

S6 – 281

Raluca Ianchis, **Ioana Catalina Gifu** (National R-D Institute for Chemistry and Petrochemistry), Ludmila Otilia Cinteza, Cristina Lavinia Nistor, Cristian Petcu, Sabina Georgiana Nitu, Claudia Mihaela Ninciuleanu, Elvira Alexandrescu, Catalin Ilie Spataru

Synthesis of silica encapsulated clove oil gel used in gum treatment

S6 – 288

Maria Andreea Nistor (Institute of Chemistry Timisoara of Romanian Academy, Romania), Eliza Muntean, Simona Gabriela Muntean, Robert Ianos, Maria Elena Rădulescu-Grad, Cornelia Pacurariu

Iron oxide/carbon nanocomposites: Influence of reaction conditions on the synthesis and application as specific sorbents

S6 – 290

Enikő Volceanov (University Politehnica of Bucharest, Centre for Surface Science and NanoTechnology, Romania), Adrian Volceanov, Simona Maria Sandu

Influence of microwave heating on coal bottom ash properties and microstructure

S6 – 291

Haitham Al Kelini (University of Bucharest), Sumayah Ibraheem, Mutaz Dhayaa Shnawa, Dan Florin Mihailescu

Synthesis of magnetic nanoparticles for biomedical applications

S6 – 295

Konstantinos Pantapasis, Alina Maria Holban, **Stefania Stoleriu** (University Politehnica of Bucharest)

Glass-ceramic materials in CaO - SiO_2 - P_2O_5 - B_2O_3 system with application in bone tissue engineering

S6 – 318

Sabina Georgiana Nitu (National Research&Development Institute for Chemistry and Petrochemistry – ICECHIM), Cristina Lavinia Nistor, Raluca Ianchis, Cristian Petcu, Elvira Alexandrescu, Catalina Ioana Gifu, Claudia Mihaela Ninciuleanu

Encapsulation of lavender oil in hybrid silica particles

S6 – 321

Denisa Andreea Bontas (University Politehnica of Bucharest), Alina Maria Holban, Stefania Stoleriu
Bioceramics in the $\text{Ca}_2\text{ZnSi}_2\text{O}_7$ - $\text{Sr}_2\text{ZnSiO}_7$ system

S6 – 322

Ana-Maria Elena Rosu (University Politehnica of Bucharest), Alina Maria Holban, Stefania Stoleriu
Diopside based scaffolds

S6 – 324

Andrei-Tiberiu Cucuruz (University Politehnica of Bucharest), Ecaterina Andronescu, Cristina Ghitulica, Andreia Cucuruz
Influence of aluminium oxide particles on polymethyl methacrylate matrix for basic prosthetic restorations

S6 – 325

Andreia Cucuruz (University Politehnica of Bucharest), Cristina Ghitulica, Georgeta Voicu, Sorina Dinescu, Aleksandra Buzarovska
Composite biomaterials based on chitosan and hydroxyapatite substituted with magnesium ions

S6 – 326

Roxana Trusca (University Politehnica of Bucharest), Lucian Diamandescu
Structural and morphological evolution with temperature of zinc oxide doped with iron and neodymium

S6 – 338

Alexandra M. I. Trefilov, Athanasios Tiliakos, Adriana Balan, **Eugeniu Vasile** (University Politehnica of Bucharest), Eugenia Vasile, Ioan Stamatina
Carbon xerogels implemented as gas diffusion layer materials in PEM fuel cells

S6 – 347

Bogdan Stefan Vasile (University Politehnica of Bucharest), Otilia Ruxandra Vasile, Ecaterina Andronescu, Roxana Trusca, Eugeniu Vasile, Coralia Bleotu, Alina – Maria Holban, Carmen – Mariana Chifiriuc, Florin Iordache, Horia Maniu
Silver cytotoxicity: grain size and synthesis route influence

S6 – 348

Otilia-Ruxandra Vasile (University Politehnica of Bucharest), Ecaterina Andronescu, Bogdan-Stefan Vasile, Roxana Trusca, Eugeniu Vasile, Alina-Maria Holban, Carmen-Mariana Chifiriuc, Florin Iordache, Horia Maniu
 TiO_2 nanostructures: grain size cytotoxicity

S6 – 354

Catalina-Andreea Stanciu (University Politehnica of Bucharest), Bogdan Stefan Vasile, Lucian Trupina, Marin Cernea, Roxana Trusca, Adelina-Carmen Ianculescu

Structural and piezoelectric properties of 5 mol% Ce³⁺-doped barium titanate nanowires prepared by sol-gel method

S6 – 374

Moanta Adriana (CEPROCIM SA), Voinitchi Dorinel, Voinitchi Radu

The influence of the addition of inorganic micro-spheres on some properties of masonry mortars and plasters

Sponsors

