



CNMN

Centrul național de
micro și nanomateriale



The Academy of Romanian Scientists

University Politehnica of Bucharest

National Center of Micro and Nanomaterials



International Scientific Conference

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

Virtual Conference - Teams platform

25 - 26 June 2021

Conference opening - 25 June at 9:00 AM

[Access link](#)

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

PROGRAM

25 June 2021

9:00-9:15

OPENING CEREMONY

9:15-12:00

PLENARY SESSION

12:00-12:30

POSTER SESSION

12:30-13:30

LUNCH BREAK

13:30 - 16:00

SESSION I. APPLICATIONS OF
NATURAL COMPOUNDS

SESSION II. NANOSTRUCTURES FOR
FOOD PACKAGING,
BIOREMEDIATION, AND
INDUSTRIAL APPLICATIONS (I)

16:00 - 16:30

BREAK

16:30 - 19:00

SESSION III. BIOMATERIALS FOR
TISSUE ENGINEERING AND
REGENERATION

SESSION IV. NOVEL MATERIALS
AND NANOPRODUCTS
INDUSTRIAL
APPLICATIONS (I)

26 June 2021

9:00-10:00

POSTER SESSION

10:00-12:30

SESSION V. NANOMATERIALS AND
BIOMATERIALS FOR THE
CONTROLLED RELEASE OF
BIOACTIVE MOLECULES (I)

SESSION VI. NANOSTRUCTURES
FOR FOOD PACKAGING,
BIOREMEDIATION, AND
INDUSTRIAL APPLICATIONS (II)

12:30-13:30

LUNCH BREAK

13:30 - 15:00

SESSION VII. NANOMATERIALS AND
BIOMATERIALS FOR THE
CONTROLLED RELEASE OF
BIOACTIVE MOLECULES (II)

SESSION VIII. ADVANCED AND NOVEL
TECHNIQUES FOR MATERIAL
PROCESSING

15:00-16:00

CLOSING CEREMONY

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

PROGRAM - 25 June 2021

9:00-9:15 - OPENING CEREMONY

Prof. Ecaterina ANDRONESCU – President of the Scientific Committee

Prof. Adrian-Alexandru BADEA – President of The Academy of Romanian Scientists

Prof. Tudor PRISECARU – President of the University Politehnica of Bucharest Senate

9:15-12:00 - PLENARY SESSION

Chairs - SERGUEI SAVILOV. ANTON FICAI

9:15-9:45 - The Features of Carbon Nanostructures. SERGUEI SAVILOV. EKATERINA ARKHIPOVA

9:45-10:05 - The Biomedical Applications of Chitosan Based Nanomaterials as Wound Dressings. LENUȚA PROFIRE. ANDREEA TEODORA IACOB. OANA MARIA IONESCU. TEODORA IURĂȘCU. IOANNIS GARDIKIOTIS. SIMONA ELIZA GIUȘCA. IRINA-DRAGA CĂRUNTU

10:05-10:20 - Presentation on the Legislation in the Field of Medical Devices in the Current European and International Context. SORINA LOGHIN

10:20-10:50 - Polymer Nanocarriers as Emerging Smart Nanoformulations. DOMENICO LOMBARDO

10:50-11:30 - From Self-Assembly of Amphiphiles to Ionic Liquid Formation. PIETRO CALANDRA

11:30-12:00 - Q & A Session

12:00-12:30 - POSTER SESSION

Chairs - IRINA FIERASCU. FAIK N. OKTAR

12:30-13:30 - LUNCH BREAK

13:30 - 16:00 - SESSION I. APPLICATIONS OF NATURAL COMPOUNDS

Chairs - PIETRO CALANDRA. LENUȚA PROFIRE

13:30-13:45 - Production of Nanofibers Containing Purified Black Seed Oil by Making Use of Electrospinning System. IHSAN FATIH ERTAS. MÜSLÜM DEMİRCIOĞLU. MUHAMMET UZUN

13:45-14:00 - The Use of Additive Manufacturing Method to Develop Lanolin Based Scaffold for Wound Dressing Applications. AL AMIN. ANI DIANA KUYUMCU. MUHAMMET UZUN. OĞUZHAN GÜNDÜZ

14:00-14:15 - Controlled Release of Resveratrol-Loaded Levan Nanoparticles Using Electrospray. EZGI CINAN. SUMEYYE CESUR. OGUZHAN GUNDUZ. EBUR TOKSOY ONER

14:15-14:30 - Polyphenols: A Natural Alternative for Cancer Therapy. ALINA FLORENTINA VLADU. ANTON FICAI

14:30-14:45 - Magnetite-Silica Core-Shell Nanoparticles Functionalized with Essential Oils for Antimicrobial Therapies. CRISTINA CHIRCOV. MARIA-FLORENTINA MATEI. OVIDIU OPREA. ALEXANDRU MIHAI GRUMEZESCU. IONELA ANDREEA NEACȘU. ECATERINA ANDRONESCU

14:45-15:00 - Synthesis and Characterization of Electrospun Nanofibers Loaded with Black Tea/Thyme Plant Extracts as an Antimicrobial Wound Dressing. AYBUKE GUR. SUMEYYE CESUR. TUBA SEVIMOĞLU. OGUZHAN GUNDUZ

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

15:00-15:15 - Controlled Release of Amygdalin Loaded PLA/PEG Nanofiber by Electrospinning Method. SERAP AYAZ SEYHAN. DILEK BILGIC ALKAYA. SUMEYYE CESUR. OGUZHAN GUNDUZ

15:15-15:30 - Production, Characterization, and Evaluation of Sublingual *Micromeria Fruticosa* Subsp. Brachycalyx-Loaded Chitosan/Polyvinyl Alcohol Nanofibers. ILKE KABA OGLU. RAVANA BABAZADE. FADIME TOPAL. ECE GULER. HATICE KÜBRA ELCIOGLU. MUHAMMET EMIN CAM

15:30-15:45 - The Evaluation of Ultra-Fast Release *Teucrium Polium*-Loaded Nanofibers Produced by Electrospinning in the Treatment of Diabetes Mellitus. ELIF BEYZANUR POLAT. AYSE NUR HAZAR-YAVUZ. ECE GULER. HATICE KÜBRA ELCIOGLU. MUHAMMET EMIN CAM

15:45-16:00 - Drug Delivery Systems for Topical Cannabidiol. An Overview and Future Research Directions. GEANINA SILVIANA BANU. ANTON FICAI. NICOLAE COSTACHE

13:30 - 16:00 - SESSION II. NANOSTRUCTURES FOR FOOD PACKAGING, BIOREMEDIATION, AND INDUSTRIAL APPLICATIONS (I) Chairs - EDUARD COROPCEANU. MARIA GAVRILESCU

13:30-13:45 - Initial Screening of Biosorption Process Modelling and Optimization for its Industrial Scale-up. MIHAELA ROȘCA. RALUCA-MARIA HLIHOR. PETRONELA COZMA. CĂTĂLINA FILOTE. ISABELA-MARIA SIMION. MARIA APOSTOL. MARIA GAVRILESCU

13:45-14:00 - Comparison of Eco-Friendly and Conventional Bioremediation Processes Scenarios of Metal-Loaded Wastewaters. CĂTĂLINA FILOTE. MIHAELA ROȘCA. ISABELA MARIA SIMION. RALUCA-MARIA HLIHOR

14:00-14:15 - Nickel Toxicity for *Sinapis Alba L.* Plant and its Phytoremediation Potential for Metal Recovery. MARIANA MINUȚ. MIHAELA ROȘCA. PETRONELA COZMA. MARIANA DIACONU. MARIA GAVRILESCU

14:15-14:30 - Ecological Risk Assessment on Heavy Metals in Soils: An Overview. GINA-MIHAELA FINARU (CHELARU). PETRONELA COZMA. CAMELIA SMARANDA. IOAN MAMALIGA. MARIA GAVRILESCU

14:30-14:45 - Environmental Constraints Generated by Food Waste and Alternatives for Sustainable Management. ERSILIA DANIELA LAZAR (COȘBUC). ELENA-DIANA UNGUREANU-COMANITA. SIMONA ILĂU (OLTEANU). MARIA GAVRILESCU

14:45-15:00 - Comparative Assessment of Lead Chloride and Cadmium Chloride to *Ocimum Basilicum L.* DANA MIHAELA ASIMINICESEI. LAURA HAGIU ZALESCHI. MARIA APOSTOL. RALUCA MARIA HLIHOR. MARIA GAVRILESCU

15:00-15:15 - Electrochemical Investigation of Thin CrN_x Films Deposited on 310 H Stainless Steel by Thermoionic Vacuum Arc (TVA) Method. AURELIA ELENA TUDOSE. IOANA DEMETRESCU. FLORENTINA GOLGOVICI. MANUELA FULGER. DIANA DINIAȘI. CRISTINA SURDU-BOB. ALEXANDRU ANGHEL. MARIUS BĂDULESCU

15:15-15:30 - Application of TVA Coating Technology on Zy-4 and as-Received Cr Coating Characterization. DIANA DINIAȘI. IOANA DEMETRESCU. FLORENTINA GOLGOVICI. CRISTINA SURDU. ALEXANDRU ANGHEL. MARIUS BĂDULESCU. MANUELA FULGER. AURELIA TUDOSE

15:30-15:45 - Investigation of Chemical Stress Generated by Lead on the Growth and Physiology of *Zea Mays L.* IONELA CĂTĂLINA VASILACHI. DANA MIHAELA ASIMINICESEI. MARIANA MINUȚ. MIHAELA ROȘCA. PETRONELA COZMA. CAMELIA BETIANU. MARIA GAVRILESCU

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

15:45-16:00 - A Study on the Effect of Tip to Collector Distance to Electromechanical Properties of Electrospun Carbon Nanotube Based Flexible Strain Sensors. SELIN GENÇAY, İHSAN FATİH ERTAŞ, MERT TAŞ, ABDULKADİR ŞANLI, MUHAMMED UZUN

16:00 - 16:30 - BREAK

16:30 - 19:00 - SESSION III. BIOMATERIALS FOR TISSUE ENGINEERING AND REGENERATION

Chairs - VITALIE COBZAC, IOANA DEMETRESCU

16:30-16:45 - Selection of an Appropriate Cross-linking Method of Collagen Sponges for Articular Cartilaginous Tissue Engineering. VITALIE COBZAC, LILIANA VERESTIUC, MARIANA JIAN, VIOREL NACU

16:45-17:00 - Bacterial Cellulose/Boron Nitride Hydrogels Potential for Bone Tissue Engineering Applications. SEMRA UNAL

17:00-17:15 - Synthesis of Silk Fibroin Derived from Silk Cocoon and Using for Tissue Engineering Applications. SUREYYA ELIF CELIK, SONGUL ULAG, AYSE CEREN CALIKOGLU KOYUNCU, OGUZHAN GUNDUZ

17:15-17:30 - Collagen and Keratin Additives for New Nanostructures in Tissue Engineering. MARIA STANCA, CARMEN GAIDAU, MARIA RAPA, DANIELA BERECHET, ANAMARIA MOSUTIU

17:30-17:45 - Terbium-Doped Hydroxyapatite. ANDREI PĂDURARU, OVIDIU OPREA, ADINA MAGDALENA MUŞUC, BOGDAN ŞTEFAN VASILE, FLORIN IORDACHE, ECATERINA ANDRONESCU

17:45-18:00 - Effect of Corn Starch Additive on Mechanical and Biocompatibility Properties of Sintered β -TCP Bioceramics. YIĞIT TURAN, CEVRIYE KALKANDELEN, YUKSEL PALACI, ALI ŞAHİN, HASAN GÖKÇE, OĞUZHAN GÜNDÜZ

18:00-18:15 - Biomaterials Based on Multifunctional Hydroxyapatite for Orthopedic Applications. REKA BALINT, GHEORGHE TOMOAI, DANIEL OLTEAN-DAN, AURORA MOCANU, MARIA TOMOAI-COTISEL

18:15-18:30 - Bioceramics Based on Magnesium Silicate for Bone Regenerative Medicine. ALEXANDRA AVRAM, MARIA GOREA, GHEORGHE TOMOAI, AURORA MOCANU, MARIA TOMOAI-COTISEL

18:30-18:45 - Biological Assessment of Electrospun Nanofibres Based on Chitosan. ANDREEA-TEODORA IACOB, OANA-MARIA IONESCU, TEODORA HANGHICEL IURASCU, MARIA APOTROSOAEI, FLORENTINA LUPAŞCU, MARIA DRĂGAN, LENUŢA PROFIRE, ANTON FICAI, ECATERINA ANDRONESCU

18:45-19:00 - Hyaluronic Acid-Based Electrospun Nanofibers: Design and Characterization. OANA MARIA IONESCU, ANDREEA TEODORA IACOB, ARN MIGNON, TEODORA IURASCU, IOANNIS GARDIKIOTIS, NATALIA SIMIONESCU, LENUŢA PROFIRE

16:30 - 19:00 - SESSION IV. NOVEL MATERIALS AND NANOPRODUCTS

Chairs - DOMENICO LOMBARDO, OVIDIU OPREA

16:30-16:45 - The Evaluation of the Osteoinductive Effect of Vitamin D₃/Vitamin K₂/Magnesium-Loaded Polylactic Acid/Tricalcium Phosphate/Polycaprolactone Composite Nanofibers on Wnt/B-Catenin Pathway. ECE GULER, MUHAMMET EMIN CAM

16:45-17:00 - Novel Treatments for Nail Diseases. TEODORA ANDREEA BUNDA, ECATERINA ANDRONESCU, ALEXANDRU MIHAI GRUMEZESCU

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

- 17:00-17:15 - Morphological, Structural, and Chemical Characterization of Hydroxyapatite Obtained Through Different Synthesis Routes. **MARIA-ELENA ZARIF. ALINA MARIA HOLBAN. SORIN VIZIREANU. GHEORGHE DINESCU. ALEXANDRU MIHAI GRUMEZESCU. ECATERINA ANDRONESCU**
- 17:15-17:30 - Gelatin Methacryloyl (GelMA) Nanofibers via Centrifugal Spinning. **EZGI ISMAR. OGUZHAN POLAT. FATI H ARICAN. AYKUT SANCAKLI**
- 17:30-17:45 - Hybrid Material: Silver Nanoclusters Trapped in PEGDA-Based Hydrogel for Environmental Monitoring. **LUCA BURRATTI. NAYELI REYES MORENO. FABIO DE MATTEIS. ROBERTO FRANCINI. PAOLO PROSPPOSITO**
- 17:45-18:00 - Sulfur-Doped Graphene Nanoflakes: Synthesis and Application in Supercapacitors. **MIKHAIL LEVIN. EKATERINA ARKHIPOVA. DMITRII STOLBOV. ANTON IVANOV. SERGUEI SAVILOV**
- 18:00-18:15 - Extracellular Vesicles as Tiny Riddles from Medicine to Material Science. **ESRA CANSEVER MUTLU**
- 18:15-18:30 - Synthesis of Ti₃C₂T_x MXene with Various Surface Functionalisation. **NIKOLAY OSIPOV. STEPAN YU. KUPREENKO. SERGUEI V. SAVILOV**
- 18:30-18:45 - Optimization of the Mechanical Performance of 3D Printed Sandwiches. **S. VALVEZ. P.N.B. REIS. ABÍLIO P. SILVA**
- 18:45-19:00 - A Route to Biofabrication of Microbubble Based Scaffolds via Microfluidic Systems. **ECEM DOĞAN. MUSTAFA ŞENGÖR. CEM BÜLENT ÜSTÜNDAĞ. OĞUZHAN GÜNDÜZ**

PROGRAM - 26 June 2021

9:00-10:00 - POSTER SESSION

Chairs - **IRINA FIERASCU. FAIK N. OKTAR**

10:00-12:30 - SESSION V. NANOMATERIALS AND BIOMATERIALS FOR THE CONTROLLED RELEASE OF BIOACTIVE MOLECULES (I)

Chairs - **OGUZHAN GUNDUZ. DENISA FICAI**

- 10:00-10:15 - Biocompatible and Biomimetic Nanofibers Based on Chitosan and Active Substances with Antioxidant Effects. **TEODORA IURASCU. ANDREEA-TEODORA IACOB. ALEXANDRU SAVA. OANA IONESCU. LENUȚA PROFIRE**
- 10:15-10:30 - New Multitarget Polymer Systems for the Treatment of Diabetes Mellitus. **FLORENTINA GEANINA LUPAȘCU. IOANA VASÎNCU. ANDREEA-TEODORA IACOB. MARIA APOTROSOAEL. DAN LUPAȘCU. GEORGIANA TAUSER. MARIA DRAGAN. ANDRA ABABEI. LORENA HERCIU. SIMONA ROTARIU. LENUȚA PROFIRE**
- 10:30-10:45 - A Novel Multi-Target Strategy for the Treatment of Alzheimer's Disease: Donepezil/Memantine/Curcumin-Loaded Nanofibers. **FADIME TOPAL. BUSRA ERTAS. ECE GULER. MUHAMMET EMIN CAM**
- 10:45-11:00 - Antifungal and Antibiotic Reinforced PMMA Nanofibers for the Treatment of Corneal Keratitis. **SONGUL ULAG. MUSTAFA SENGOR. OGUZHAN GUNDUZ**
- 11:00-11:15 - The Development of Insulin-Loaded Sodium Alginate/Polyethylene Glycol Sublingual Scaffolds Produced by 3D-Printing Technology for the Treatment of Type 1 Diabetes Mellitus. **SEVDENUR AKKUTUK. ECE GULER. MUHAMMET EMIN CAM**

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

11:15-11:30 - Donepezil/Curcumin-Loaded Polycaprolactone/Poly(lactic acid) Nanofibers: A Novel Drug Delivery System for the Treatment of Alzheimer's Disease. SALIHA AYDIN, ILKE KABAĞLU, ECE GULER, FADIME TOPAL, AYSE NUR HAZAR YAVUZ, MUHAMMET EMIN CAM

11:30-11:45 - A Combined Method for Fabrication of Chitosan/PLA 3D Printed Scaffold with Rifampicin-Encapsulated Microspheres for Therapy of *Hidradenitis Suppurativa*. MERT GEZEK, HANNE MERYEM KAYADURMUŞ, ELIF İLHAN, OĞUZHAN GÜNDÜZ

11:45-12:00 - Production and Characterization of Empagliflozin-Loaded 3-Layer Polymeric Fibers for the Treatment of Diabetes Mellitus: An *In-vitro* Study. AYSE NUR HAZAR-YAVUZ, ECE GULER, MUHAMMET EMIN CAM

12:00-12:15 - Fabrication and Characterization of Carbamazepine Loaded Poly(lactic acid) (PLA) Nanofibrous Scaffolds. DILEK BILGIC ALKAYA, SERAP AYAZ SEYHAN, SUMEYYE CESUR, OGUZHAN GUNDUZ

12:15-12:30 - Antioxidant Activity of *Taraxacum Officinale*. ALA FULGA, VALERIANA PANTEA

10:00-12:30 - SESSION VI. NANOSTRUCTURES FOR FOOD PACKAGING, BIOREMEDIATION, AND INDUSTRIAL APPLICATIONS (II)

Chairs - JÖRG OPITZ, BOGDAN ŞTEFAN VASILE

10:00-10:15 - The Effect of Nanofiller Concentration on the Piezoresistive Properties of Electrospun Multiwalled Carbon Nanotubes (MWCNTS)/Thermoplastic Polyurethane (TPU). MERT TAŞ, FATİH İHSAN ERTAŞ, SELİN GENÇAY, ABDULKADİR ŞANLI, MUHAMMED UZUN

10:15-10:30 - Effect of Manufacturing Parameters on Mechanical Properties of Graphene-Based Nanocomposites. J.M. PARENTE, M.P. SILVA, P.N.B. REIS

10:30-10:45 - Air Pollution and its Effects on Sars-Cov-2 Variants. CRISTINA ROXANA POPA, GHEORGHE TOMOAI, AURORA MOCANU, MARIA TOMOAI-COTISEL

10:45-11:00 - The Influence of Proteins on Metallic Biomaterials. RADU NARTIŢĂ, DANIELA IONIŢĂ, IOANA DEMETRESCU

11:00-11:15 - Ferrocene Catalyzed Production of Carbon Nanotubes. A.P. KOZLOV, D.N. STOLBOV, E.V. SUSLOVA

11:15-11:30 - Perspectives of Waste Management Resulting from the Bakery Industry. SIMONA ILĂU (OLTEANU), ERSILIA DANIELA COŞBUC, ELENA-DIANA UNGUREANU-COMĂNIŢĂ, MARIA GAVRILESCU

11:30-11:45 - A Novel Biodegradable Material Application for Sustainable Button Design. BAHAR AŞILIOĞLU, AKIO KOBAYASHI, TÜRKAN ÖZGER, MUHAMMET UZUN

11:45-12:00 - Chemical Removal of Residual Lead from the Candidate Materials for Lead Cooled Fast Reactors. DANIEL PETRESCU, FLORENTINA GOLGOVICI, MANUELA FULGER, VALENTIN LAUTARU

12:30-13:30 - LUNCH BREAK

13:30-15:00 - SESSION VII. NANOMATERIALS AND BIOMATERIALS FOR THE CONTROLLED RELEASE OF BIOACTIVE MOLECULES (II)

Chairs - VIOREL NACU, RADU CLAUDIU FIERASCU

13:30-13:45 - Influence of Sulfated Polysaccharides from *Spirulina Platensis* on the Content of Malonic Dialdehyde in Muscle Tissue in Oxidative Stress. VEACESLAV POPA, VALERIANA PANTEA

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

13:45-14:00 - Evaluation and Production of Chitosan-Based Self-Assembled Nanoparticles for Oral Insulin Delivery. ENFAL ESER, ECE GULER, MUHAMMET EMIN CAM

14:00-14:15 - A Nanotechnological Approach to Wound Healing: Beta-Glucan-Loaded Polyethylene Oxide/Sodium Alginate Fibers Produced by Pressurized Gyration. BEYZANUR ULUDOGAN, ENFAL ESER, BUSRA ERTAS, MUHAMMET EMIN CAM

14:15-14:30 - Mesoporous Systems Loaded with Polyphenols for the Treatment of Dysbiosis. GABRIELA PETRISOR, LUDMILA MOTELICA, ROXANA TRUSCA, VLADIMIR LUCIAN ENE, DENISA FICAI, OVIDIU OPREA, ANTON FICAI

14:30-14:45 - Fabrication of Whey Protein-Loaded 3D-Printed Poly(lactic) Acid Patches for Functional Burn Wound Healing. HANNE MERYEM KAYADURMUŞ, ELIF İLHAN, OĞUZHAN GÜNDÜZ

14:45-15:00 - Impact of New Thiosemicarbazone Derivatives for Erythrocytes Antioxidant System Indices: An *Ex Vivo* Study. VALERIANA PANTEA, MARINA GAMANIUC, CRISTINA POPUŞOI, ALA FULGA, VEACESLAV POPA

13:30-15:00 - SESSION VIII. ADVANCED AND NOVEL TECHNIQUES FOR MATERIAL PROCESSING

Chairs - CEM BÜLENT ÜSTÜNDAĞ, ANDREEA-TEODORA IACOB

13:30-13:45 - Hyaluronic Acid Production from Rooster Comb. ELIF SAATÇIOĞLU, CEVRIYE KALKANDELEN, SENA SU, OĞUZHAN GÜNDÜZ

13:45-14:00 - The Investigation of the Mechanical Properties of the Coronary Stent with Finite Element Analysis. MERVE SIRTIKARA, MUSTAFA ŞENGÖR

14:00-14:15 - An Innovative Experimental Technique for Material System Dynamical Investigations on Nanoscopic Scale: Elastic Neutron Scattering Measurements Based on Statistical Chopper. MARIA TERESA CACCAMO

14:15-14:30 - New Route for Synthesis of Silver Nanoparticles Using a Microfluidic Platform. ALEXANDRA CĂTĂLINA BÎRĂ, ALEXANDRU MIHAI GRUMEZESCU, ECATERINA ANDRONESCU

14:30-14:45 - Corrosion Resistance Investigation in Liquid Lead of a Coated 316L Austenitic Steel. DANIEL PETRESCU, MANUELA FULGER, FLORENTINA GOLGOVICI, MIRCEA CORBAN

14:45-15:00 - Development of Sublingual Rivastigmin/Memantine/*Ginkgo Biloba*-Loaded Nanofibers for the Treatment of Alzheimer's Disease: *In Vitro* Studies. BUSRA ERTAŞ, ECE GÜLER, MUHAMMET EMIN CAM

15:00-16:00 - CLOSING CEREMONY

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

POSTER SESSION - 25 June 2021

Chairs - IRINA FIERASCU, FAIK N. OKTAR

1. Alginate Films with ZnO Nanoparticles and Citronella Essential Oil – Novel Antimicrobial Packaging for Cheese. LUDMILA MOTELICA, DENISA FICAI, OVIDIU OPREA, ANTON FICAI, ROXANA-DOINA TRUȘCĂ, ECATERINA ANDRONESCU, ALINA MARIA HOLBAN
2. Cotton Fiber Coated with Zinc Oxide Nanoparticles. MANUELA-DANIELA PREDA, ECATERINA ANDRONESCU, ALEXANDRA CĂTĂLINA BÎRCĂ, VLADIMIR-LUCIAN ENE, ALINA MARIA HOLBAN
3. In-depth Characterization of Electrospun Polylactic Acid (PLA) Nanofibers on TiZr Oxide. MANUELA ELENA VOICU, ANDREI BOGDAN STOIAN, IOANA DEMETRESCU, DANIELA IONITA
4. Lead Free Alkali Niobates Nanopowders. CRISTINA RODICA DUMITRESCU, ADRIAN VASILE SURDU, ADRIAN IONUT NICOARA, IONELA ANDREEA NEACSU, ROXANA TRUSCA, ANTON FICAI, ECATERINA ANDRONESCU
5. Quercetin/Curcumin Enhanced Chitosan-ZnO Composite for Antibacterial Delivery Systems. MARIA LEILA POPA, VLADIMIR-LUCIAN ENE, ALINA MARIA HOLBAN
6. Production and Characterization of Memantine/Donepezil/Metformin Loaded PVA/PEO Fibers for Alzheimer's Disease by Pressurized Gyration. AYSEN KOPUZ, ECE GULER, MUHAMMET EMIN CAM
7. Preparation, Characterization, and *In Vitro* Evaluation of Donepezil/Vitamin B12-Loaded Polycaprolactone/ Polyvinyl Pyrrolidone Fibers Produced by Pressurized Gyration for Treatment of Alzheimer's Disease. IREM NUR ONAY, ELIF BEYZANUR POLAT, BUSRA ERTAS, MUHAMMET EMIN CAM
8. A Novel Treatment Strategy for Diabetes Mellitus: Empagliflozin-Loaded Polylactic acid/Polycaprolactone Fibrous Patches Produced by Electrospinning and Pressurized Gyration. HUMEYRA BETUL YEKELER, ILKE KABA OGLU, BUSRA ERTAS, MUHAMMET EMIN CAM

APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING

POSTER SESSION - 26 June 2021

Chairs - IRINA FIERASCU. FAIK N. OKTAR

1. Viticultural Waste Management for Obtaining Nanostructures with Medical Applications. ANDA MARIA BAROI. RADU CLAUDIU FIERASCU. ROXANA IOANA BRAZDIS. TOMA FISTOS. LIA-MARA DITU. RALUCA SOMOGHI. IRINA FIERASCU
2. Adsorption Studies for the Removal of Organic and Emerging Pollutants from Aqueous Solutions Using Metal-Substituted Hydroxyapatite. ROXANA-IOANA BRAZDIS. RADU CLAUDIU FIERASCU. SORIN-MARIUS AVRAMESCU. ANDA MARIA BAROI. TOMA FISTOS. IRINA FIERASCU. VALENTIN RADITOIU
3. Enhancement of the Apatitic Materials' Antimicrobial Potential for Cultural Heritage Applications. TOMA FISTOS. ROXANA IOANA BRAZDIS. ANDA MARIA BAROI. IRINA FIERASCU. LIA-MARA DITU. RADU CLAUDIU FIERASCU
4. Latest Advances in Calcium Phosphate Surface Coatings for Microbial Biofilm Modulation. DIANA-ELENA RADULESCU. ECATERINA ANDRONESCU. ALEXANDRU-MIHAI GRUMEZESCU. IONELA-ANDREEA NEACSU. VASILE-ADRIAN SURDU. OTILIA-RUXANDRA VASILE
5. Future Trends of Scaffolds Applied in Tissue Engineering. DENISA-MARIA RADULESCU. ECATERINA ANDRONESCU. ALEXANDRU-MIHAI GRUMEZESCU. IONELA-ANDREEA NEACSU. ADRIAN-IONUT NICOARA
6. Biomaterials Based on Bee Products for Dermal Tissue Regeneration. CORINA-DANA DUMITRU. ECATERINA ANDRONESCU. IONELA-ANDREEA NEACȘU. ALEXANDRU MIHAI GRUMEZESCU. DENISA FICAI
7. Highly Porous Materials for Wound Healing. DANIELA-ALINA IONIȚĂ. ECATERINA ANDRONESCU. IONELA-ANDREEA NEACȘU. VASILE-ADRIAN SURDU. ALEXANDRU-MIHAI GRUMEZESCU
8. Black Phosphorus in Bone Tissue Engineering. ANDRA-MARIA SÎRMON. ECATERINA ANDRONESCU. IONELA-ANDREEA NEACȘU. VASILE-ADRIAN SURDU. ALEXANDRU-MIHAI GRUMEZESCU
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