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University of Chemical
Technology and
Metallurgy

CONFERENCE AGENDA

Second International Conference on
Bioactive, Organic and Inorganic Advanced
Materials and Clean Technologies

27 – 29 April 2026, Sofia, Bulgaria



BiOrgaMCT

Contract №: BG-RRP-2.004-0002-C01, „BiOrgaMCT”
(Bioactive organic and inorganic materials and clean
technologies). Procedure: BG-RRP-2.004 – Creation of a
network of research universities in Bulgaria under the National
Recovery and Resilience Plan

<https://ctt.uctm.edu>

Day 1 [27 April 2026] Park Hotel Vitosha

09:00 - 09:30	Conference Registration [Park Hotel Vitosha, Vitosha Hall Lobby]		
09:30 - 10:00	Opening [Park Hotel Vitosha, Vitosha Hall]		
10:00 - 10:45	Keynote speaker: Prof. D.Sc. Ashok Vaseashta, <i>Spinning the Threads of Innovation: Biopolymer-Based Electrospun Nanofibers for Healing, Regeneration, and Beyond</i>		
10:45 - 11:00	Coffee break [Park Hotel Vitosha, Vitosha Hall Lobby]		
11:00 - 12:30	First Session (Oral presentations)		
Topic	New generation materials [Vitosha Hall 1]	Light-responsive materials [Vitosha Hall 2]	Biologically active molecules [Moreni Hall]
Chairperson	Prof. Plamen Petkov	Dr. Anton Georgiev	Prof. Dancho Danalev
Speakers	<p>Prof. Delia Brauer <i>Bioactive Glasses – the Effect of Their Structure on Properties and Applications</i></p> <p>Prof. Lalla Btissam Drissi <i>Light-Responsive Carbon Nanostructures: Bridging Biomedical and Energy Applications</i></p> <p>Prof. Dumitru Tsiulyanu <i>Investigation of electrical conduction and moisture sensing abilities of tellurium-sodium nitrate nanocomposites</i></p> <p>Prof. Petrica Vizureanu <i>β-Alloys, A New Class of Materials for Biomedical Engineering</i></p> <p>Dr. Daniel Merker <i>Diamond Thin Films as Biointerfaces</i></p> <p>Dr. Dimitar Dimitrov <i>In-situ synthesis of AuNPs, encapsulated in nanosized silica using green reagents</i></p>	<p>Prof. Sylvain Achelle <i>Photoluminescence of Platinum (II) Complexes with Diazine-based ligands</i></p> <p>Prof. Carlos Lodeiro <i>From Molecular Emitters to Smart Hybrid Platforms: Translating Optical Sensing from the Lab to Real-World Applications</i></p> <p>Dr. Kosuke Nakashima <i>Rearrangement of C2-Spirooxindoles: Conversion to the 2-Hydroxyhemi-indigo and Chromenoindole</i></p> <p>Prof. Ivo Piantanida <i>One molecule to bind them all: organic dyes simultaneously targeting DNA, RNA or proteins, for each target giving a selective response</i></p>	<p>Prof. Manuel Graça <i>Smart Doping: How Iron Oxide Transforms the Bioactivity and Antibacterial Profile of 45S5 Glass</i></p> <p>Prof. Anna Ermakova <i>Nanodiamonds for nanoscale sensing</i></p> <p>Dr. Aneliya Kostadinova <i>Chitosan-based nanocomposites enriched with plant extract in a model of diabetic wound healing in vitro</i></p> <p>Dr. Aura Tintaru <i>NMR study of drug loaded nanocarriers</i></p> <p>Prof. Petar Todorov <i>Synthesis, spectral analysis and molecular docking of new caffeic and cinnamic acid-conjugated hemorphin analogs with potential biological activity</i></p> <p>Prof. Jana Tchekalarova <i>Pharmacological evaluation of novel N- and C-modified peptide analogues of VV-hemorphin-5 and VV-hemorphin-7 as potential agents with anti-seizure activity</i></p>

12:30 - 14:00	Lunch break [Park Hotel Vitosha Restaurant]		
14:00 - 15:30	Second Session (Oral presentations)		
Topic	New generation materials [Vitosha Hall 1]	Light-responsive materials [Vitosha Hall 2]	Biologically active molecules [Moreni Hall]
Chairperson	Prof. Dumitru Tsiulyanu	Prof. Carlos Lodeiro	Prof. Jana Tchekalarova
Speakers	<p>Dr. Andrei Sandu <i>Obtaining and Characterization of Low Carbon Footprint Materials</i></p> <p>Prof. Marina Ciobanu <i>Thermal effects and glass transition temperature of AsS₃-GeS₄ ternary</i></p> <p>Prof. Luis Costa <i>Polymer composites for smart thermal management and protection in energy systems</i></p> <p>Trayana Dolchinkova <i>Optical properties of InP/ZnS quantum dots sensitized thin azo polymer films</i></p> <p>Prof. Şaban Atapek <i>Investigation of Electrochemical Corrosion Behavior of SiMo-SiNb Ductile Cast Irons</i></p> <p>Tsvetelina Liubenova <i>SEM and EDX Study of Zinc-Magnesium and Zink-Cobalt Phosphate Coatings on Mild Steel Surfaces</i></p>	<p>Dr. Atanas Kurutos <i>Emerging colorimetric and fluorimetric smart materials</i></p> <p>Dr. Peter Šebej <i>Substituent Effects on Cyanines: Role of Chain Length and Position</i></p> <p>Dr. Rebecca Strada <i>A Study of the Deexcitation Pathways in Semicroconaine Dyes</i></p> <p>Desislava Marinova <i>Determinants of Z-Isomer Stability in Phthalylhydrazones: Dual Light- and Acid-Controlled Switching</i></p> <p>Eckhart Kornejew <i>Customized Polyaspartic-Polyurea Systems for Surface Coating</i></p>	<p>Prof. Dancho Danalev <i>Biologically active peptides - potential for new medical drugs</i></p> <p>Dr. Rossitsa Hristova <i>Design, Synthesis, and Biological Evaluation of Novel Methyl-Substituted Pyrrole Hydrazones as Selective Melanoma Agents</i></p> <p>Prof. Emilia Naydenova <i>Anticancer Activity of novel Analogues of Aurein 1.2 Containing Non-Proteinogenic Amino Acids in in vitro models of Osteosarcoma and Glioblastoma</i></p> <p>Prof. Nelly Georgieva <i>Study on the effects of incorporation of unnatural amino acids in more than one position in the Temporin A molecule</i></p> <p>Dr. Boryana Borisova <i>Novel heterocyclic PDE4 Inhibitors: a promising strategy for anti-inflammatory drug discovery</i></p> <p>Dilyana Dimitrova <i>Synthesis and evaluation of Temporin A analogues modified with unnatural amino acids as potential antimicrobial agents</i></p>
15:30 - 16:30	Coffee break & Poster Presentations [Vitosha Hall Lobby & Moreni Hall Lobby]		

16:30 - 17:30		Flash Poster Presentations	
New generation materials [Vitosha Hall 1] Prof. Andriana Surleva		Light-responsive materials [Vitosha Hall 2] Desislava Marinova	
Biologically active molecules [Moreni Hall] Dilyana Dimitrova			
<p>Dr. Ondrej Bošák <i>Electrical and dielectric properties of barium vanadate glasses with ZnO</i></p> <p>Prof. Vilma Petkova <i>Induced defects and disorders in crystal structure of dry milled activated fluor apatite</i></p> <p>Dr. Pavlina Koleva <i>Doped and undoped thin films obtained by spray pyrolysis technique</i></p> <p>Sofia Slavova <i>Theoretical and Experimental Study on the Luminescence Properties of Europium(III)-2-carbamido-/2-acetyl-1,3-indandione Complexes</i></p> <p>F.B. Yılmaz Güler <i>Investigation of Corrosion Behavior in AlCoCrFeNiX Alloys Produced by Spark Plasma Sintering</i></p> <p>Irem Erçel <i>Assessment of the properties of AA2024-T3 aircraft alloy after anodic polarization in biocompatible organic acid electrolytes</i></p> <p>Rui Yang <i>Structural Optimization and Antifouling and Anti-corrosion Performance Enhancement of Epoxy Coatings Based on Zeolitic Imidazolate Frameworks Materials</i></p>	<p>Dr. Boris Martinov <i>Antibacterial silicone coatings incorporating GO, RGO, ZnO, and Ag nanoparticles</i></p> <p>Dr. Anelya Petrina <i>Structural study and bioactivity of solid state synthesized biogenic hydroxyapatite</i></p> <p>Dr. Daniela Angelova <i>Sustainable Valorization of Polystyrene Waste into Activated Carbon for Water Treatment</i></p> <p>Kalina Krumova <i>Preparation of Zirconium-Containing Barium Titanate Oxide Glass-Ceramics – Phase Composition, Microstructure and Electric Properties</i></p> <p>Dr. Hristo Georgiev <i>Composition and morphology of the newly formed phases on the surface depending on the conditions of the in vitro bioactivity test</i></p> <p>Dr. Ekaterina Serafimova <i>From Farm to Table and Back Again: Circular Valorization of Biomass Ash and Sewage Sludge into Sustainable Material Blends</i></p> <p>Dr. Tina Tasheva <i>Structure and in vitro bioactivity of novel composites based on biogenic hydroxyapatite and borate glasses</i></p>	<p>Dr. Nikolay Yavorov <i>Eco-friendly functional paper coating for conservation efficiency</i></p> <p>Jakub Štrojsa <i>Tuning Aggregation-Induced Emission via Solvent Polarity in Triazine Derivatives</i></p> <p>Jakub Valuš <i>The Impact of Donor–Acceptor Interactions on the Aggregation and Emission Behavior of Chromophores</i></p> <p>Hristo Lalkovski <i>Effect of temperature on the luminescent properties of sol – gel prepared Eu 3+ doped SiO₂ –B₂O₃ glasses</i></p> <p>Dr. Polyana Miladinova <i>Synthesis of heterocyclic reactive dyes for cotton with possibility for application as inhibitors of corrosion</i></p>	<p>Dr. Temenuzhka Radoykova <i>Antioxidant phenolic compounds from lignocellulosic waste materials and their application for polymer stabilization</i></p> <p>Dr. Veronica Nemska <i>Antibacterial activity of new rimantadine derivatives against Bacillus subtilis NBIMCC 3562 and Escherichia coli NBIMCC 8785</i></p> <p>Elena Velichkova <i>Titan based organic-inorganic gels, containing Temporin A and analogs</i></p> <p>Milica Vidić <i>Preliminary chemical analysis and assessment of the antioxidant potential of Satureja horvatii Šilić (Lamiaceae) herb extracts prepared using natural deep eutectic solvents</i></p> <p>Dr. Darya Ilieva <i>Evaluation of the parameters of a spectrophotometric method for the Quantitative determination of an antimicrobial ingredient in commercial products</i></p>

Day 2 [28 April 2026] Park Hotel Vitosha

09:30 - 10:00	Conference Registration [Park Hotel Vitosha, Vitosha Hall Lobby]		
10:00 - 10:45	Keynote speaker: Dr. Olivier Siri, Azacalixarene: An Ever-Growing Macrocycle		
10:45 - 11:00	Coffee break [Park Hotel Vitosha, Vitosha Hall Lobby]		
10:45 - 11:00	Demonstration of Zeiss AxioScope 5 Smart Laboratory Microscope by AQUACHIM representative		
11:00 - 12:30	Third Session (Oral presentations)		
Topic	New generation materials [Vitosha Hall 1]	Bight-responsive materials [Vitosha Hall 2]	Biologically active molecules [Moreni Hall]
Chairperson	Dr. Christian Girginov	Dr. Kosuke Nakashima	Prof. Stela Georgieva
Speakers	<p>Prof. Perica Paunovic <i>Graphene-Modified Conductive Polymer Based Composite Films for EMI Shielding Purpose</i></p> <p>Dr. Alberto López-Grande <i>Thermodynamic model for the structure of Nd doped phosphate laser glasses</i></p> <p>Prof. Ruzha Harizanova <i>Zirconium Modified Barium Titanate Crystallized from Oxide Glasses: Phase Composition and Microstructure</i></p> <p>Dr. Neda Neykova <i>Effect of the passivation layer in perovskite solar cells</i></p> <p>Prof. Tomasz Czujko <i>Innovative materials for hydrogen storage - expectations and reality</i></p> <p>Prof. Carmen Ristoscu <i>Composite Coatings Synthesized by Laser Methods for Improved Bone Repair and Enhanced Antimicrobial Protection</i></p>	<p>Dr. Stefano Luigi Oscurato <i>All-optical metrology using azopolymer surface-relief gratings</i></p> <p>Dr. Sheelbhadra Chatterjee <i>Cooperative switching in a dihydropyrene-dithienylethene (DHP-DTE) hybrid photo switchable system</i></p> <p>Dr. Marcella Salvatore <i>Light-Based System for Multifunctional Azopolymer Surface Design</i></p> <p>Prof. Filip Bures <i>Boosting Photosynthesis by Light-Emitting Materials</i></p> <p>Dr. Jiří Tydlitát <i>Triphenylamine Derivatives: From Emissive Solutions to Emissive Aggregates</i></p>	<p>Dr. Fatos Rexhepi <i>Integrated FTIR and Chemometric Approach for Detecting Non-Local Adulteration in Styrian Pumpkin Seed Oil</i></p> <p>Dr. Yoana Stoyanova <i>Application of membrane filtration and spray drying for valorisation of spent lavender</i></p> <p>Dr. Iliana Nikolova <i>Increasing the functionality of paper with natural products</i></p> <p>Dr. Nevena Lazarova-Zdravkova <i>Membrane-Assisted Recovery and Spray Drying of Bioactive Compounds from Spent Lavender Biomass</i></p> <p>Dr. Diyan Tochev <i>Phenolic compounds in secondary products from wine production of mavrud</i></p>



12:30 - 14:00	Lunch break [Park Hotel Vitosha Restaurant]		
14:00 - 15:30	Fourth Session (Oral presentations)		
Topic	New generation materials [Vitosha Hall 1]	Light-responsive materials [Vitosha Hall 2]	Electrochemical methods for material studies [Moreni Hall]
Chairperson	Prof. Ruzha Harizanova	Prof. Sylvain Achelle	Prof. D.Sc. Martin Bojinov
Speakers	<p>Petar Takov <i>Manganese Ferrite Containing Glasses-Ceramics – Phase Composition, Microstructure and Electric Properties</i></p> <p>Dr. Johan Alauzun <i>Synthesis of mesoporous hybrid materials as sorbent or catalyst support by non-hydrolytic sol-gel</i></p> <p>Dr. Ognen Pop-Georgievski <i>Self-assembled monolayers: From versatile surface modification platforms for sensing to hole transporting layers for solar cell applications</i></p> <p>Dr. Stephan Kozhukharov <i>Anodization of AA2024-T3 aircraft alloy in environmentally friendly electrolytes</i></p>	<p>Dr. Stevan Gavranović <i>Advanced SCLC Model: A Guide for Analysis of the Fermi Level Shift in the Bandgap of Halide Perovskites</i></p> <p>Prof. Laurent Arurault <i>Tuning thermo-optical properties of anodic films</i></p> <p>Prof. Christian Brosseau <i>Electromagnetism of Functional Biomaterials</i></p> <p>Dr. Ivo Crnolatac <i>More (polarized) light on biomolecular binding, probing molecular interactions with Fluorescence Anisotropy</i></p> <p>Dr. Ventsislav Bakov <i>Exploring 1,8-naphthalimide AIEgens for Advanced Sensing Applications</i></p> <p>Prof. Desislava Staneva <i>Self-disinfecting textiles modified with fluorescent hyperbranched polymers via antimicrobial photodynamic therapy</i></p>	<p>Prof. D.Sc. Martin Bojinov <i>In-situ electrochemical studies of corrosion of low-alloyed steel in simulated steam generator coolants</i></p> <p>Dr. Nikoleta Ivanova <i>Molecular Dynamics Investigation of Small Molecule Adsorption on Magnetite Surfaces</i></p> <p>Dr. Vasil Karastoyanov <i>Corrosion and anodic oxidation of Alloy 690 in simulated primary coolant of a small modular reactor studied by in-situ electrochemical impedance spectroscopy</i></p> <p>Dr. Yoanna Penkova <i>Electrochemically synthesized copper-tungsten oxides as photo-cathodes for photo-electrochemical water splitting</i></p> <p>Lyuben Borislavov <i>Time Series Machine Learning Models for Organic Electrode Materials</i></p>
15:30 - 16:00	Coffee break [Vitosha Hall Lobby & Moreni Hall Lobby]		
16:30 - 19:00	Workshop for doctoral students/ Visit of UCTM laboratories/ Sofia Free tour		

Day 3 [29 April 2026] Park Hotel Vitosha

09:30 - 10:00	Conference Registration [Park Hotel Vitosha, Vitosha Hall Lobby]		
10:00 - 10:45	Keynote speaker: Dr. Christine Baudequin, C-H functionalization: an efficient route for the synthesis of bioactive compounds and fluorescent heterocycles		
10:45 - 11:00	Coffee break [Park Hotel Vitosha, Vitosha Hall Lobby] Demonstration of Zeiss Axioscope 5 Smart Laboratory Microscope by AQUACHIM representative		
11:00 - 12:00	Fifth Session (Oral presentations)		
Topic	New generation materials [Vitosha Hall 1]	Light-responsive materials [Vitosha Hall 2]	Biologically active molecules [Moreni Hall]
Chairperson	Prof. Perica Paunovic	Dr. Atanas Kurutos	Prof. Petar Todorov
Speakers	<p>Prof. Michael Herzog <i>Recycling Innovations for Sustainable Material Management</i></p> <p>Prof. Christian Dreyer <i>Functional Integration for Urban and Vertical Farming and Beyond</i></p> <p>Dr. Vivian Müller <i>Composite Innovation for a Circular and Resilient Future</i></p> <p>Dr. Milan Klikar <i>Affecting the optoelectronic properties of tripodal chromophores using various fluorine-based terminal substituents</i></p>	<p>Prof. Hua Li <i>Fabrication of Visible-Light Active Ce-Doped Bi₂O₃ Coatings via Single-Step Solution Precursor Plasma Spraying</i></p> <p>Dr. Wojciech Stępniewski <i>Electrochemical oxidation of copper and copper alloys: mechanism, challenges, and applications</i></p> <p>Dr. Andreas Bernaschek <i>Investigation of New Approaches for UV-Curable Synthetic Resins and Non-Newtonian Fluids (STF)</i></p> <p>Dr. Kiril Dimitrov <i>Sustainable Functional Integration of Chitosan-Based Components in Composites: Development and Applications</i></p>	<p>Dr. Xiaomei Liu <i>Decoy EPS Layers for Trapping and Killing Bacteria</i></p> <p>Dr. Kameliya Anichina <i>Advances in the Design and Synthesis of Benzimidazole-based Anti-Trichinella Spiralis Agents</i></p> <p>Prof. Stela Georgieva <i>Application of the Biologically Active Compound Cefixime for Selective Voltammetric Determination of Nitrite in Water via Diazotization–Coupling Reaction on a GC Electrode</i></p> <p>Dr. Janna Mateeva <i>Study on solvent effects in the dissolution of rosa damascena concrete for rose absolute production</i></p>
12:00 - 12:15	Closing remarks [Vitosha Hall 1]		
12:15 - 13:30	Lunch break [Park Hotel Vitosha Restaurant]		

Poster Sessions – 27 April, 15:30 - 16:30

New generation materials [Vitosha Hall Lobby]

Dr. Eduard Stefanov

Mercury removal from technical sulfuric acid

Dr. Vanya Lilova

Effect of the photocatalyst aggregation on the photocatalytic reaction rate concentration dependence

Dr. Vesislava Toteva

Processing of cotton textile waste for sustainable synthetic fuel production: pretreatment, enzymatic hydrolysis and product characterization

Prof. Vilma Petkova

Microstructural properties of self-compacting cement mortars with water reducer admixture and mineral additions

Prof. Marian Kubliha

Electrical and dielectric properties of sulfide-based solid electrolytes with Na ionic conductivity

Dr. Petr Kostka

Tellurite glasses co-doped with rare earths and chromium

Kalina Ivanova

Study on the Antimicrobial Behavior of TiO₂/ZnO/CuO Sol-Gel Powders

Stefani Petrova

Photoactive cotton fabrics on the basis of Ho doped TiO₂ nanoparticles for self-cleaning

Dr. Boyan Yordanov

Structure and mechanical properties of tool steel D3 alloyed with silicone nitride nanomodifier

Dr. Biserka Lucheva

Lead Recovery from Lead Cake by Combined Chlorination Roasting and Leaching Process

Alexander Tzintzarov

*Synthesis and characterization of chitosan-*T. parthenium* and *L. nobilis* composites*

Dr. Jan Pospisil

Advanced SCLC Model: A Guide for Analysis of the Fermi Level Shift in the Bandgap of Halide Perovskites

Dr. Georgi Chernev

Nano modified inorganic-organic surface agents for protection of concrete products

Dr. Iskren Spiridonov

Recyclable paper packaging with increased barrier properties

Maria Sabeva

Synthesis, characterization and antibacterial properties of sol-gel derived ZnO/ collagen materials

Dr. Kostadinka Sezanova

Synthesis and characterization of Cu-modified β -Ca₃(PO₄)₂ as a biomaterial for application in medicine

Taras Kavetsky

Kinetics of photopolymerization of soybean oil-based polymers

Dr. Tsvetomila Lazarova

High Entropy Spinel Oxides: Synthesis, characterization and catalytic properties



Poster Sessions – 27 April, 15:30 - 16:30

Light-responsive and functional materials [Vitosha Hall Lobby]

Blagovesta Katevska

Evaluation of deacidification product efficiency during accelerated thermal aging of document papers

Dr. Marijana Radić Stojković

Structure-Selective Binding and Bioactivity of Chlorine-Substituted Cyanine Dyes with DNA, RNA, and Lipid Membranes

Nina Vukadinović

Selective Targeting of DNA, RNA, and Lipid Membranes by Chlorine-Substituted Cyanine Dyes

Dr. Lidija-Marija Tumir

Styryl Dyes with N-Phenylpiperazine Functionality: DNA, RNA and G-quadruplex Binding Ligands

Biologically active molecules

[Moreni Hall Lobby]

Dr. Diana Kichukova

Synthesis and characterization of zeolite with Bugarian herbals composites

Dr. Darina Georgieva

Developing active packaging based on natural products

Dr. Ivan Savić

*Chemical profile and antiradical activity of leaf and flower extracts of nasturtium (*Tropaeolum majus* L.)*

Rositsa Antonova

Cannabinoids, Hydroxycannabinoids, and Cannabidiol: Chemistry, Pharmacology, and Clinical Potential

Lilia Yordanova

Comparative Antibacterial Activity of $\text{SiCu}(\text{OH})_2$ and SiCuSO_4 Nanomaterials

Dayana Benkova

*Chitosan-Encapsulated *Tanacetum parthenium* and *Laurus nobilis* Extracts as a Phytotherapeutic Approach Against Melanoma*

Denitsa Georgieva

Strain-Dependent DPPH and ABTS Radical-Scavenging Potential of Microalgae Strain Culture Supernatants

Dr. Stanislava Vladimirova

Synthesis of new pyrroloquinoline compounds as potential biological active agents

Silviya Hristova

Lignin and Catechin Synergistically Improve Antioxidant Functionality of Silk Fibroin Biomaterials

Dr. Ariana Langari

*Influence of extract of bay leaf (*Laurus nobilis*) and its chitosan-based composite on erythrocyte morphology and fluidity*

Prof. Zvezdelina Yaneva

Synergistic Antioxidant Performance of Lignin–Chitosan Nanocomposites: Experimental Evaluation and AI-Guided Optimization

Dr. Veronika Karadjova

Synthesis and characterization of new metal complexes of Be(II) - peptide ligand

Poster Sessions – 27 April, 15:30 - 16:30

Electrochemical methods for material studies

[Moreni Hall Lobby]

D.Sc. Maria Atanassova

Solvent extraction and separation of 3d-series metals with 4-acylpyrazolones

D.Sc. Maria Atanassova

New chelating ligands comprised of pyrazolone and carboxymethyl-bridged saturated N-heterocyclic moieties for solvent extraction of iron

Georgi Vassilev

Redox processes in symmetric electrochemical cells for sodium-ion batteries

Tsvetelina Gerasimova

Electrochemical Sodium Storage in Biowaste-Derived Hard Carbons

Trajche Tushev

Carbon Composites with Nasicon Phosphosulphate with Improved Sodium Energy Storage

Dr. Mariya Kalapsazova

Electrochemical insertion of sodium ions into hard carbons through the view of ex-situ EPR spectroscopy

Viktor Yanev

Study Of Rare - Earth Metal Oxides As Additives To Li_3RuO_4 & Li_2RuO_3 To Improve Cycling Stability

Rositsa Kukeva

In-situ EPR analysis of electrochemically decomposed organic electrolytes, ingredients in Na- and Li-ion batteries, supported by theoretical DFT calculations and complementary NMR analysis

Dr. Martin Nedyalkov

Electrochemical pulverization of lithium ruthenates driven by oxygen activity activation

Dr. Silva Stanchovska

Sodium titanates as negative electrodes in full sodium-ion cells

Dr. Delyana Marinova

Bipolar organic matrices and their redox interaction with Li^+ and Na^+ ions in non-aqueous electrolyte

Dr. Sonya Harizanova

Reduced graphene oxide as perspective additive for phosphate-pyrophosphate electrode materials

Dr. Dimka Fachikova

Electrochemical characterization of advanced titanium alloys with biomedical applications



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Contract №: BG-RRP-2.004-0002-C01, „BiOrgaMCT”
(Bioactive organic and inorganic materials and clean
technologies). Procedure: BG-RRP-2.004 – Creation of a
network of research universities in Bulgaria under the National
Recovery and Resilience Plan

<https://ctt.uctm.edu>