Programme of the 27th International Conference–School

ADVANCED MATERIALS AND TECHNOLOGIES 2025

Date: 25–29 August 2025

Venue: Hotel "Gabija" Vytauto St. 40, Palanga, Lithuania
http://www.gabija.lt/en/

advancedmaterials.ktu.edu

POSTER SESSION

AUGUST 28, THURSDAY, 16:00 – 18:00

METHODS OF SURFACE ANALYSIS

P1 **Application of Scanning Electron Microscopy for the Analysis of Biological Samples**
Edvardas Brimas, Inga Grigoraviciute, **Aivaras Kareiva**

P2 **Development of Metal-Dielectric Multilayer Coating for High Sensitive Biological Interactions Sensor**
Alexandr Belosludtsev, Tomas Rakickas, Edita Voitechovic, Ignas Bitinaitis, Viktor Reshetnyak, Anatoly Suprun, Liudmyla Shmeleva

P3 **Nonlinear Optical Properties of the PVC-C60 Composite**
Mykhailo Zabolotnyy, Lyudmyla Aslamova, Dmytro Gryn'ko, Roman Lytvyn, Anton Sezonenko, Vladyslav Martynchuk, Kolesnychenko Anastasiia, Romashkina Maryna, Pysarevskyi Bogdan, Yeva Boboshko, **Maksym Barabash**

P4 **Ultrasensitive Detection of PVC Nanoplastics via PIERS on Ag Nanoflake-TiO_2 Platform**
Olugbenga Ayeni, Josiah Shondo, Tim Tjardts, Sinan Şen, Franz Faupel, Salih Veziroglu, Oral C. Aktas, Tayebeh Ameri

P5 **Comparison of Recombinant SARS-CoV2 Spike Protein and Nanoparticles-Based Spike Protein Application for Immunosensing**
Silvija Juciutė, Vincentas Mačiulis, Asta Lučiūnaitė, Mantvydas Usvaltas, Almira Ramanavičienė, Ieva Plikusienė

P6 **Impact of Washing Temperature on Microplastic Release from Textiles**
Ugne Gliaudelyte, Julija Baltusnikaite-Guzaitiene

SURFACE ENGINEERING AND NANOSTRUCTURES

P7 **Synthesis and Characterization of Chitosan Nanoparticles of Ficus Exasperata for Preservation of Beans against Weevils**
Juliana Onyowoicho Ogbodo, Sylvester Obaike Adejo, Benjamin Asen Anhwange

P8 **Diffraction Grating-Based Elastic Medical Patch with Moisture-Sensitive Material for Monitoring Sweat Secretion**
Erika Rajackaitė, Diana Šimonienė, Indrė Danisevičienė, Andrius Žutautas, Agnė Kadusauskienė, Aistė Čemerkaitė, Pranas Narmontas

P9 **Cost-Effective Fabrication of Metal-Doped Carbon Aerogels for Energy Storage Devices**
Rouz Barjoud, Yelyzaveta Rublova, Jana Andzane, Donats Erts

P10 **Engineering of Functional Surface Capping Layers of Topological Nanoscale Materials**
Agnese Spustaka, Gunta Kunakova

P11 **Bi_2Se_3-MWCNT Heterostructures as Catalysts for CO_2 Photothermal Reduction**
Andrei Felsharuk, Ilga Lauma Leimane, Yelyzaveta Rublova, Natalia Amirulloieva, Donats Erts, Jana Andzane

P12 **Modification in Optical Properties of a Single-Layer TADF OLED with Nanoplasmonics**
Aron Dahlberg, Päivi Törmä

P13 **Sand from the Latvian Coast of the Baltic Sea for Filtration of Yeast Cells and Nickel Ions from Water**
Dagnis Beitāns-Špaks, Yuri Dekhtyar, Renāte Kalniņa, **Elizabete Skrebele**, Hermanis Sorokins, Viktorija Šipilova

P14 **Impact of Alcohols on Morphology and Structure of Fibrous Silica Nanospheres (KCC-1)**
Jawed Qaderi, Maryam Radjabian, Martin Held, Anke-Lisa Höhme, Erik Schneider, Joachim Koll, Sandra König, Andreas Meyer, Michael Fröba, Volker Abetz

P15 **Optimization of E-Beam Lithography using Ultrasensitive Resist for Metasurface Fabrication**
Dovilė Petrauskaitė, Mindaugas Juodėnas

P16 **Optimization of Reactive Ion Etching at Cryogenic Temperatures for Metasurface Fabrication**
Erika Jonaitytė, Mindaugas Juodėnas

P17 **Influence of Growth and Annealing on the Optical Properties of Bismuth Quantum Dots in GaAsBi/AlAs Quantum Wells**
Justas Žuvelis, Evelina Dudutienė, Andrea Zelioli, Aivaras Špokas, Renata Butkutė

P18 **Effect of Laser-Textured Surface Patterns on Wettability of AW-6082 Aluminum Alloy**
Laura Čepauskaitė, Regita Bendikienė

P19 **Catalyst-less Synthesis of Planar and Vertical Graphene Using MW-PECVD**
Šarūnas Jankauskas, Rimantas Gudaitis, Asta Guobienė, Šarūnas Meškinis

P20 **Plasmonic Enhancement of OLED Efficiency with Silver Nanoparticles**
Bohdan Bulavinets, Volodymyr Rokhiv, **Tetiana Bulavinets**, Khrystyna Ivaniuk, Iryna Yaremchuk

P21 **Optimizing Parameters for Selective Laser Etching**
Ugnė Lukaševičiūtė, Tomas Klinavičius, Sigitas Tamulevičius, Tomas Tamulevičius

P22 **Biosynthesis of Silver Nanoparticles via *Medusomyces gisevii* Fermentation with *Tilia cordata* Extract: Surface Modifications, Phytochemical Analysis and Enhanced Antimicrobial and Antioxidant Properties**
Urte Raubyte, Mindaugas Liaudanskas, Jonas Viskelis, Aiste Balciunaitiene

ELECTRONIC AND OPTICAL MATERIALS

P23 **Effect of Substituents and Trap Sites on Hole-Ransporting Properties of the Derivatives Triazatruxene**
Akaki Kalatozishvili, Jūratė Simokaitiene, Dmytro Volyniuk, Algirdas Lazauskas, Juozas Vidas Grazulevicius

P24 **Tunable Broadband Visible Emission Achieved by Phase Transformation-Driven Self-Reduction of Eu^{3+} to Eu^{2+} in a Calcium Phosphate Matrix**
Sapargali Pazylbek, Simona Bendziute, Jonas Stadulis, Ligita Valeikiene, Viktorija Lisyte, Andris Antuzevics, Guna Doke, Guna Krieke, Arturas Katelnikovas, **Aleksej Zarkov**

P25 **Isophtaloylbisdibenzothiophene-Cored Donor–Acceptor–Donor Compounds as Promising Triplet Emitters for Organic Optoelectronics**

Alena Kimpel, Mariia Stanitska, Oleksandr Bezvikonnyi, Juozas Vidas Gražulevicius

P26 **Synthesis of Nonlinear Optically Active Indandione and Indacene Tetraone Pyridinium Betaines**

Anastasija Rižkova, Kirills Dmitrijevs, Kaspars Traskovskis

P27 **Photoluminescence Properties of Ce-Doped $Tb_xGd_{3-x}Al_5O_{12}$ with Different Terbium Content**

Arnoldas Solovjovas, Saulius Nargelas, Gabija Soltanaitė, Žydrūnas Podlipskas, Yurij Zorenko, Etiennette Auffray, Gintautas Tamulaitis

P28 **Development of New Carbazole-Based Electroactive Materials for OLEDs Using RPA Technology**

Audrius Bucinskas, Oleksandr Bezvikonnyi, Dmytro Volyniuk, Juozas Vidas Grazulevicius

P29 **Developing Efficient Organic Light-Emitting Diodes Using Bis(Benzoyl)Benzene-Based Emitters Exhibiting Thermally Activated Delayed Fluorescence**

Dmytro Volyniuk, Ugnė Seibutytė, Ghasemi Melika, Mariia Stanitska, Juozas Vidas Grazulevicius

P30 **High Triplet Energy Hosts for Blue TADF Organic Light-Emitting Diodes Employing Dibenzofuran and Benzodioxin**

Domantas Berenis, Kristupas Bagdonas, Goda Grybauskaitė, Dovydas Banevičius, Gediminas Kreiza, Eigirdas Skuodis, Edvinas Orentas, Karolis Kazlauskas

P31 **Influence of Spike Geometry on Linear and Nonlinear Optical Properties in Gold Nanourchins**

Domantas Peckus, Fatima Albatoul Kasabji, Maziar Moussavi, Loic Vidal, Hana Boubaker, Asta Tamulevičienė, Arnaud Spangenberg, Tomas Tamulevičius, Joel Henzie, Karine Mougin, Sigitas Tamulevičius

P32 **Novel 3-(Diphenylamino)Carbazole-Based Compounds as Multi-Channel Green TADF Emitters**

Dovydas Blazevicius, Raminta Beresneviciute, Daiva Tavgeniene, Saulius Grigalevicius, Wanting Ju, Xiangqin Gan, Junqiao Ding

P33 **Influence of Sputtering Atmosphere on Photochromism and Texture of YHO Thin Films**

Emija Letko, Martins Zubkins, Edvards Strods, Viktors Vibornijs, Anatolijs Sarakovskis, Juris Purans

P34 **Transient Cathodoluminescence in Nitride V-Defects**

Gabija Soltanaitė, Žydrūnas Podlipskas

P35 **Search for High Triplet Energy Hosts for Stable Blue TADF OLEDs**

Giedrius Puidokas, Domantas Berenis, Gediminas Kreiza, Dovydas Banevičius, Kristupas Bagdonas, Rita Butkutė, Karolis Kazlauskas

P36 **Fabrication and Characterization of Self-Assembled Plasmonic Nano Lasers**

Gvidas Klyvis, Mindaugas Juodėnas, Tomas Tamulevičius, Nadzeya Khinevich, Joel Henzie, Sigitas Tamulevičius

P37 **Exchange of Optical Vortices in an Atomic System with Closed-Loop Tripod Configuration**

Viačeslav Kudriašov, Mazena Mackoit Sinkevičiene, Nilamoni Daloi, Julius Ruseckas, Tarak N. Dey, Sonja Franke-Arnold, **Hamid Reza Hamedi**

P38 **Donor-Tuned Triplet Dynamics: From Classical TADF to Hot Exciton Emission with Bipolar Transport**

Hamisu Aliyu Mohammed, Viktorija Andruleviciene, Matas Guzauskas, Dmytro Volyniuk, Woon Kai Lin, Azhar Ariffin, Juozas Vidas Grazulevicius

P39 **Plasmonic Properties of the Silver Nanoparticles in an Organic Matrix**

Oleksandr Ilin, Tetiana Bulavinets, **Iryna Yaremchuk**

P40 **Anisotropic Magnetotransport of CVD-grown WTe_2 Nanoribbons**

Jeļena Sušinska, Natalia Amirulloieva, Gunta Kunakova

P41 **Multifunctional Quinoxaline-Based Triplet Emitters Exhibiting Room Temperature Phosphorescence and White Electroluminescence**

Jurate Simokaitiene, Mohamed Abdella, Matas Guzauskas, Asta Dabuliene, Rasa Keruckiene, Juozas Vidas Grazulevicius

P42 **Understanding Loss Mechanisms in Photon Upconversion Films Using Monomeric and Hexameric Triplet Annihilators**

Justas Lekavičius, Paulius Baronas, Maciej Majdecki, Przemysław Gaweł, Kasper M. Poulsen, Karolis Kazlauskas1

P43 **Design and Development of Asymmetric Thiazolothiazole-Based AIE(E)gens for Modern Optoelectronic Devices**

Khushdeep Kaur, Asta Dabuliene and Juozas Vidas Grazulevicius

P44 **Ternary Organic Solar Cell Efficiency Enhancing with Novel D-A-D and A'-D-A-D-A' Type Non-Fullerene Acceptors**

Kirills Dmitrijevs, Anastasija Rižkova, Vedaslavs Voroncovs, Kaspars Traskovskis, Raitis Gržibovskis

P45 **Waveguide – Surface Lattice Resonances in Periodic Nanoparticle Array – Semiconductor Heterostructures**

Klaudijus Midveris, Gvidas Klyvis, Mindaugas Juodėnas, Joel Henzie, Tomas Klinavičius, Andrius Vasiliauskas, Asta Tamulevičienė, Tomas Tamulevičius

P46 **Threshold Switching and Resistive Switching in SnO_2-HfO_2 Laminated Ultrathin Films**

Kristjan Kalam, Mark-Erik Aan, Joonas Merisalu, Markus Otsus, Peeter Ritslaid, Kaupo Kukli

P47 **Investigation of 2,1,3-Benzothiadiazole-Based Compounds Exhibiting Far-Red Thermally Activated Delayed Fluorescence**

Lesia Volyniuk, Irena Kulszewicz-Bajer, Melika Ghasemi, Dmytro Volyniuk, Audrius Bucinskas, Juozas Vidas Grazulevicius

P48 **White Organic Light-Emitting Diodes with Multilayer Exciton-Confinement Architecture Employing 2,1,3-Benzothiadiazole–Fluorene-Based Red Emitters**

Liliia Deva, Pavlo Stakhira, Iryna Yaremchuk, Lyudmyla Kanibolotska, Oleksandr Kanibolotskyy, Peter Skabara, Dmytro Volyniuk, Juozas Vidas Grazulevicius

P49 **Linear Donor-Acceptor Systems Featuring BT Unit**

Lyudmyla Kanibolotska, Oleksandr Kanibolotskyy, Joseph Cameron, Peter J. Skabara

P50 **UV Photon Upconversion in MR-TADF Sensitized Films**

Manvydas Dapkevičius, Džiugas Krencius, Justas Lekavičius,Steponas Raišys, Karolis Kazlauskas

P51 **Derivatives of Anthraquinone of A-D-D' Structure Exhibiting Near-Infrared (NIR) Absorption for Solution-Processable Photodetectors**

Mariia Stanitska, Lilia Deva, Boris Minaev, Valentyna Minaeva, Dmytro Volyniuk, Pavlo Stakhira, Juozas Vidas Grazulevicius

P52 **New Pyrido-pyrazines Take the Stage, for Efficient TADF in This OLED Age**

Matas Gužauskas, Domantas Lekavičius, Rasa Keruckienė, Juozas Vidas Gražulevičius

P53 **Tunable Emission and Charge-Transporting Properties of a Carbazole-Triazine Derivative for High-Efficiency Red OLEDs**

Melika Ghasemi, Joseph Cameron, Woon K. Lin, Dmytro Volyniuk, Peter J. Skabara, Juozas Vidas Gražulevičius, Gjergji Sini

P54 **Design and Evaluation of Imidazole–Fluorene-Based Luminophores for Efficient Blue OLED Emission**

Mohamed Abdella, Matas Guzauskas, Jurate Simokaitiene, Juozas Vidas Grazulevicius

P55 **Graphene Direct Synthesis on Annealed and Non-Annealed SiO_2 Films VIA PECVD**
Muhammad Adnan Saeed, Šarūnas Meškinis

P56 **Investigation of Derivatives of Benzothiadiazole and Fluorene for Multifunctional Applications in Organic Electronics**
Nataliia Kuzyk, Khrystyna Ivaniuk, Pavlo Stakhira, Mohamed Abdella, Jurate Simokaitiene, Dmytro Volyniuk, Juozas Vidas Grazulevicius

P57 **Photoluminescent Star-Shaped Systems with Extended π-Conjugated Core**
Oleksandr Kanibolotskyy, Minming Yang, Lyudmyla Kanibolotska, Peter J. Skabara

P58 **Influence of Rare Earth Co-Doping on the Optical and Structural Properties of Ce^{3+}-Doped YAGG Phosphors**
Olzhas Shalkhar, Robert Tomala, Dagmara Stefanska, Zivile Stankeviciute, Justina Gaidukevic, Aivaras Kareiva

P59 **Using Single-Component Emitters for Down-Converting WIeds Application**
Serhii Melnykov, Lesia Volyniuk, Pavel Arsenyan, Oleksandr Bezvikonnyi, Dmytro Volyniuk, Juozas Vidas Grazulevicius, Pavlo Stakhira

P60 **Synthesis and Investigation of Phenoxazine-Based Derivatives as Potential Emitters for Organic Light-Emitting Diodes**
Simas Mačionis, Shushana Vardanyan, Jūratė Simokaitienė, Juozas Vidas Gražulevičius

P61 **Electroluminescence Properties of Novel Red Emitters**
Stepan Kutsiy, Lyudmyla Kanibolotska, Alexander L. Kanibolotskyy, Mykhailo Shchetinin, Oleh Klymkevych, Peter J Skabara, Pavlo Stakhira

P62 **Carbazolyl- and Dibenzofuranyl-Functionalized p-Phenylenediamines as Efficient Hole-Transporting Materials for Optoelectronics**
Svetlana Sargsyan, Mariia Stanitska, Melika Ghasemi, Rasa Keruckiene, Dmytro Volyniuk, Viktorija Andruleviciene, Juozas Vidas Grazulevicius

P63 **Development of Organic Molecules with Inverted Singlet-Triplet Energy Gap**
Vedaslavs Voroncovs, Kaspars Traskovskis

P64 **Optimization Of Luminescent Properties of Thiazol-2-Ylidene-Based Carbene-Metal-Amide Complexes**
Žanis Sisojevs, Kaspars Traskovskis

P65 **Selectively Reflecting Resonant Optical Coatings for Efficient Hybrid Thermal-Electric Power Generation**
Tomas Klinavičius, Gabija Riaubaitė, Raymond C. Rumpf, Tomas Tamulevičius

CERAMICS

P66 **Water-Based Tape-Casting Method for Fabrication of High-Quality $Na_{0.5}Bi_{0.5}TiO_3$ Thick Films**
Arturs Atvars, Marija Dunce, Gusts Agafonovs, Eriks Birks

P67 **Comparison of the Properties of Layered Double Hydroxides Synthesized via Sol-Gel, Hydrothermal, and Co-Precipitation Methods**
Gabrielė Klydziute, Denis Sokol, Aivaras Kareiva

P68 **Approach for Achieving Core-Shell Structures in Lead-Free Ferroelectric Ceramics**
Gusts Agafonovs, Marija Dunce, Arturs Atvars, Eriks Birks

P69 **Microwave-Assisted Synthesis of Iron-Doped Carbonated Hydroxyapatite**
Kamile Dargyte, Gabriele Sarapajevaite, Lidija Turilinaite, Jokubas Lukosiunas, Odeta Baniukaitiene, Tadas Dambrauskas

POLYMER AND COMPOSITES

P70 **Cationic and Radical Polymerization of 9(4vinylphenyl)carbazole and its Derivatives**
Aliaksei A. Vaitusionak, Heorhi K. Belavusau, Irina V. Vas\ilenko, Dmytro Volyniuk, Sergei V. Kostjuk, Juozas V. Grazulevicius

P71 **Effect of Sterilisation Methods on the Rheological Properties of Hydrogels**
Anete Vircava, Agnese Brangule, Ingus Skadiņš

P72 **Eco-Friendly Polyhydroxyalkanoate Copolymer Reinforced with Shungite**
Domas Grigaliūnas, Malik Daniyal Zaheer, Deividas Umbrasas, Rolanas Daukševičius, Virginija Jankauskaitė

P73 **Production and Characterization of Eco-Friendly Bricks Using Recycled Plastic Waste**
Emmanuel Barki, Celestine Mbakaan

P74 **Development of Eugenol- and Isoeugenol-Modified Calcium Hydroxyapatite Composites for Enhanced Antibacterial Activity**
Justina Karciauskaite, Maab Elsheikh, Monika Mortimer, Karin Valmsen, Rokas Žalnėravičius, Inga Grigoraviciute, Audrius Padarauskas, Zivile Stankeviciute, Aivaras Karei

P75 **Tailoring Piezoelectric Performance in Polymer Composites via Liquid Crystal-Assisted Interface Desigining for Efficient Energy Harvesting Devices**
Kaustav Jit Bora, Aloka Sinha

P76 **EPR Study of Accelerated Electron-Irradiated Latvian Darkhead Sheep Wool Fibers**
Liga Avotina, Magdalena Rzepna, Jaroslaw Sadlo, Arturs Zarins

P77 **On the Incorporating of Propolis into Calcium-Deficient Hydroxyapatite**
Maab Elsheikh, Justina Karciauskaite, Aadil Hussain, Inga Grigoraviciute, Zivile Stankeviciute, Aivaras Kareiva

P78 **Development of Lightweight and Durable Cement Composites Using Agricultural Waste**
Celestine Mbakaan

P79 **Rheological Characterization of Inulin-Based Hydrogel Loaded with Gallic Acid**
Renāte Teterovska, Agnese Brangule, Anete Vircava

P80 **Development and Evaluation of 3D-printed High-Z Composite Materials for Photon Shielding in Cyclotron Target Areas**
Shirin Arslonova, Diana Adlienė

P81 **Synthesis and Application of Fe_3O_4–Buckwheat Hull Magnetic Nanocomposites for the Biosorption of Toxic Heavy Metal**
Tayyab Tahir, Rūta Druteikienė, Zita Žukauskaitė, Jūratė Vaičiūnienė

ADVANCED ENGINEERING MATERIALS

P82 **Sol–Gel Synthesis and Characterization of Mixed $LnMn_{0.45}Fe_{0.45}Co_{0.1}O_3$ (Ln = Y, La–Lu) Perovskites**
Aigul Dastankyzy, Dovydas Karoblis, Kestutis Mazeika, Aivaras Kareiva

P83 **Optimizing Pressure in Functional Garments: Adhesive Technologies and Virtual Fitting Approaches**
Ana Černiavskaja, Kristina Ancutienė

P84 **Photostability Investigation of Magnesium and Copper Chlorophyllin-Chitosan Complexes**
Gabrielė Vasiliauskaitė, Irina Buchovec

P85 **Study of Performance Degradation in Low Gain Avalanche Detectors Irradiated by 24 GeV/c Relativistic Protons**
Kęstutis Žilinskas, Tomas Čeponis, Vytautas Rumbauskas, Laimonas Deveikis, Jevgenij Pavlov, Margarita Biveinytė

P86 **Engineering an Eco-Friendly Hybrid Bi-Layer Fabric Having Inherently Flame-Resistant & Antibacterial Characteristics for Children's Protective Clothing**
Muhammad Ehtisham Sarwar, Rimvydas Milasius

P87 **From Waste to Yarn: Quantifying Efficiency Challenges in Denim Mechanical Recycling**
Muhammad Sohaib Anas, Daiva Mikucioniene

P88 **Production of Biochar from Cotton Waste**
Tadas Dambrauskas, Brigita Savickaite, Egidijus Zvicevicius, Kestutis Ziura, Juozas Padgurskas

P89 **Development of Carbon-Black-Reinforced PEEK Composite for Self-Lubricating Journal Bearings**
Tomas Kačinskas, Saulius Baskutis

P90 **Analyzing Aggregation Behavior and Photophysical Properties of Riboflavin-Magnesium Chlorophyllin Mixtures**
Urtė Mitrofanaitė, Irina Buchovec

P91 **Approaches to Microencapsulation and Their Applications in the Textile Industry**
Zarnab Gul, Daiva Milasiene

MATERIALS FOR ENERGY

P92 **Development of Membrane Electrode Assembly Based on One-Dimensional Nanostructures**
Adriana Marinoiu

P93 **Iron Nanoparticles Supported on Reduced Graphene Oxide as Nonprecious Metal Catalysts for Low Temperature PEM Fuel Cells**
Adriana Marinoiu

P94 **Bi_2Se_3-MWCNT Heterostructures as Catalysts for CO_2 Photothermal Reduction**
Andrei Felsharuk, Ilga Lauma Leimane, Yelyzaveta Rublova, Natalia Amirulloieva, Donats Erts, Jana Andzane

P95 **Temperature-Driven Sodium Ion Transport within Hydrogels for Low-Grade Heat Conversion to Electricity**
Anete Anmane, Ilga L. Leimane, Raimonds Poplausks, Donats Erts, Irina Oliseveca

P96 **Design and Synthesis of Nanoporous Anodic Aluminum Oxide Membranes for Energy Harvesting Applications**
Armanda E. Kairisa, Ilga L. Leimane, Irina Oliseveca, Jana Andzane, Raimonds Poplausks, Donats Erts

P97 **Influence of Sample Handling Conditions on Radiation-Induced Effects in Advanced Ceramic Breeder Ceramics**
Arturs Zarins, Liga Avotina, Andris Antuzevics, Maria Gonzalez, Julia M. Leys, Regina Knitter

P98 **Development of a Microbial Biofuel Cell Using Biocompatible Nanocomposites**
Beatričė Kulikauskaitė, Antanas Zinovičius, Birutė Sapijanskaitė-Banevič, Tomas Mockaitis, Arūnas Ramanvičius

P99 **Photocatalytic Properties of Nanostructured Copper Oxide and Zinc Oxide Heterostructures for CO_2 Reduction**
Davis Gavars, Roberts Rinkis, Margarita Volkova, Artis Kons, Liga Avotina, Anatolijs Sarakovskis, Jana Andzane

P100 **Triboelectric Devices with Enhanced Power Output**
Dmitrijs Romaskevics, Andrei Felsharuk, Jana Andzane, Andris Sutka, Donats Erts, Raimonds Meija

P101 **Influence of Expanded Graphite on the Thermal Properties of Phase Change Material**
Jolanta Donėlienė, Saulius Pakalka, **Eglė Fataraitė-Urbonienė**

P102 **Study of Novel Electron Acceptor Materials for Ternary Organic Solar Cells**
Elizabete Praulina, Raitis Grzibovskis, Kirills Dmitrijevs, Kaspars Traskovskis

P103 **Unique Nickel Catalysts for Borohydride Hydrolysis**
Gitana Valeckytė, Zita Sukackienė, Jūratė Vaičiūnienė, Loreta Tamašauskaitė-Tamašiūnaitė, Eugenijus Norkus

P104 **Testing Performance of Advanced Heterostructures Photo-Assisted Aqueous Zn-ion Batteries**
Gustavs Henrijs Zvaigzne, Rouz Barjoud, Andrei Felsharuk, Raimonds Meija, Donats Erts, Jana Andzane

P105 **Thermoelectric Properties and Applications of Aqueous Sodium Sulfate Electrolyte Infiltrated in Nanochannels for Energy Harvesting**
Ilga Lauma Leimane, Irina Oliseveca, Jana Andzane, Raimonds Meija, Raimonds Poplausks, Donats Erts

P106 **Influence of Organic Dye Structures on Charge Transport in Perovskite Solar Cells**
Milda Žitinevičiūtė, Matas Steponaitis

P107 **Engineering MoS_2-based Hybrid Catalysts for Superior Electrochemical Water Splitting Performance**
Muhammad Naeem Hafiz, Adeel Tariq, Loreta Tamašauskaitė-Tamašiūnaitė, Ramūnas Levinas

P108 **Thermoelectric Properties of Biopolymer-Based Hydrogels for Low-Grade Heat Conversion into Electricity**
Nader Ashraf Ali, Ilga L. Leimane, Donats Erts, Irina Oliseveca

P109 **Nanostructured Binder-Free Metal Anodes for Sustainable Aqueous Batteries**
Veronika Moiseja, Rouz Barjoud, Andrei Felsharuk, Raimonds Meija, Donats Erts, Jana Andzane

P110 **Investigation of Bi_2Se_3-SWCNT Heterostructures for Applications in Zn-Ion Batteries**
Viktorija Galaktionova, Andrei Felsharuk, Rouz Barjoud, Jana Andzane, Raimonds Meija, Donats Erts