

Programme of the 21st International Conference-School
“Advanced Materials and Technologies 2019”

Date: 19-23 August, 2019

Venue: Hotel “Gabija” (<http://www.gabija.lt/en/>)
Vytauto Str. 40, LT-00160
Palanga, Lithuania

Poster Session. August 22, Thursday, 15:30 – 17:25

Poster Session I (P1 – P61) 15:30 – 16:20
Poster Session II (P62 – P123) 16:35 – 17:25

METHODS OF SURFACE ANALYSIS

| | |
|-----------|--|
| P1 | Atomic Force Microscopy and Scanning Electron Microscopy for Imaging Modified Saccharomyces Cerevisiae Cells with Polypyrrole and Carbon Nanotubes Aura Kisieliute, Vilius Aukscionis, Antanas Zinovicius, Arunas Ramanavicius |
| P2 | Surface Plasmon Resonance Immunosensors for Detection of Human Growth Hormone in Real-Time Elena Dauksaite, Almira Ramanaviciene, Asta Kausaite-Minkstimiene |
| P3 | Spectroscopic Thickness Determination of PE-CVD Graphene, Wet-Transferred on Silicon Substrate Šarūnas Jankauskas, Rimantas Gudaitis, Erika Rajackaitė, Šarūnas Meškinis |
| P4 | Scanning Electrochemical Impedance Microscopy for the Comparison of Healthy and Pathological Human Myocardium-Derived Mesenchymal Stem Cell Jurate Petroniene, Daiva Bironaite, Rokas Miksiunas, Kestutis Rucinskas, Vilius Janusauskas, Arunas Ramanavicius |
| P5 | Application of MMXD and MGIXD Methods for Stress Measurements in the Mechanically Treated Surface Layer of Tungsten Adrian Oponowicz, Marianna Marciszko, Andrzej Baczmański, Sebastian Wroński, Mirosław Wrobel, Christoph Genzel, Manuela Klaus, Chedly Braham, Habib Sidhom |

SURFACE ENGINEERING AND NANOSTRUCTURES

| | |
|------------|--|
| P6 | Selective Elimination of Atoms or Ions in Crystals and Molecules Produced with X-Rays Arvydas Juozapas Janavičius, Romaldas Purlys, Ringaudas Rinkūnas, Mindaugas Viliūnas, Saulius Daugėla |
| P7 | Electroless Deposition of Pt Using Co(II)/Co(III) Redox System Aldona Jagminienė, Loreta Tamašauskaitė-Tamašiūnaitė, Ina Stankevičienė, Eugenijus Norkus |
| P8 | Formation of Micro Channels in PDMS via Femtosecond Laser Irradiation Mindaugas Juodėnas, Tomas Jurkšas, Tomas Tamulevičius, Artūras Vailionis, Sigitas Tamulevičius |
| P9 | Formation of Porous Silicon in the Cooled Electrolytes Aliaksandra Hurbo, Vitaly Bondarenko |
| P10 | High Yield CuO Nanowire Growth Via Thermal Oxidation Method for Application in Nanoelectromechanical Switches Raitis Sondors, Matiss M. Ramma, Edijs Kauranens, Jelena Kosmaca, Raimonds Meija, Mikk Antsov, Donats Erts |
| P11 | Cold Plasma Deposited FeO_x – Application for the Catalytic Conversion of CO₂ to CO Jacek Balcerzak, Ryszard Kapica, Hanna Kierzkowska-Pawlak, Jacek Tyczkowski |
| P12 | Laser Induced Changes in Nanostructure of Plasma-Deposited CoO_x Films Ryszard Kapica, Marcin Kozanecki, Jan Sielski, Jacek Tyczkowski |
| P13 | AIII-BV QW Structures with Bi for IR Range Optoelectronic Devices Simona Pūkienė, Mindaugas Karaliūnas, Algirdas Jasinskas, Evelina Dudutienė, Bronislovas Čechavičius, Andres Udál, Gintaras Valušis, Renata Butkutė |
| P14 | Comparison of SERS-Activity of Silicon Nanowires Coated with Silver Using Wet and Dry Processes Arseni Klimenka, Sergey Zavatski, Nikita Grevtsov, Hurbo Aliaksandra, Viktor Khaliava, Hannah Bandarenka, Vitaly Bondarenko |
| P15 | Application of Variable Thickness Anodic Alumina as Evaporation Masks for Production of Nanostructured Plasmonic Films and Nanoparticle Arrays Daniels Jevdokimovs, Raimonds Poplausks, Juris Prikulis, Uldis Malinovskis, Mindaugas Juodėnas, Donats Erts |
| P16 | Decoration of ZnO Nanorod Arrays with Gold Nanoparticles Using Dip-Coating Method Margarita Baitimirova, Uldis Malinovskis, Asta Tamulevičienė, Juris Prikulis, Donats Erts |
| P17 | The Influence of Strong Magnetic Field to Ice-Iron Sliding Properties Ivars Driķis |
| P18 | Investigation of Structured Thin Film Growth by Optical Monitoring Gabija Petrauskaitė, Lina Grinevičiūtė, Lukas Ramalis, Tomas Tolenis |
| P19 | Analysis of Silver Nanoparticle Size Distribution in DLC Matrix Before and After fs-Laser Irradiation |

Gerda Klimaitė, Aušrinė Jurkevičiūtė, Tomas Tamulevičius, Sigita Tamulevičiūtė

Photoluminescence and Plasmonic Scattering Studies of Zinc Oxide Nanorods with Noble Metal Nanoparticles

P20 Dilafruz Kulmatova, Margarita Baitimirova, Uldis Malinovskis, Tomas Tamulevičius, Yuliya Harmaza, Donats Erts, Juris Prikulis

Electrical Properties of Single and Multilayer Silicon Nitride Dielectric for Applications in Nanocapacitors

P21 Liga Avotina, Marina Romanova, Elina Pajuste, Gennady Enichek, Aleksandrs Zaslavskis, Jurijs Dehtjars, Gunta Kizane

Fabrication of Bimetallic Fe/Cu Catalyst for Heterogenous Fenton Process Catalysis

Aliona Nicolenco, Modestas Vainoris, Francisco Alcaide, Natalia Tsyntsaru, Henrikas Cesiulis

New Approach to Fabrication of SERS-Active Substrates Based on Colloidal Nanoparticles

Nadzeya Khinevich, Sigita Tamulevičiūtė, Asta Tamulevičiūtė, Hanna Bandarenka, Sergey Zavatski

Production of High-Density Au Nanoparticle Arrays on Nanoporous Anodic Alumina from Colloidal Solutions

Uldis Malinovskis, Raimonds Poplauskis, Aušrinė Jurkevičiūtė, Juris Prikulis, Donats Erts

Investigation of Directionality of Chitosan/Polyethylene Oxide Nanofibers

P25 Sandra Varnaitė-Žuravliova, Natalja Savest, Julija Baltušnikaitė-Guzaitienė, Aušra Abraitienė, Andres Krumme

Modeling of Diffusion Process in Oxygen Mobility Experiment in $Ce_xZr_{1-x}O_2$ Catalysts: Kinetic Model

Muhammad Usman, Arvidas Galdikas

Optically Transparent Fluorine Doped Tin Oxide Application for Phospholipid Membrane Formation

Inga Gabriunaite, Margarita Poderyte, Aušra Valiūnienė

Luminescence of Rare Earth Ions in Magnesium Coatings Prepared by Plasma Electrolytic Oxidation

Krisjanis Auzins, Krisjanis Smits, Aleksejs Zolotarjovs, Ivita Bite, Carsten Blawert

NEM Switch Operating Voltage Reduction and a Combined Lithography-Dielectrophoresis Method for NEM Switch Production

P29 Raimonds Meijs, Liga Jasulaneca, Jelena Kosmaca, Jana Andzane, Matiss M. Ramma, Edijs Kauranens, Donats Erts

UV Sensing with ZnO Nanotetrapods

Rasa Mardosaitė, Agnė Šulčiūtė, Mindaugas Illickas, Paulius Laurikėnas, Simas Račkauskas

High Diffraction Efficiency Periodic Micro Structures

Andrius Žutautas, Tomas Tamulevičius, Sigita Tamulevičiūtė

Synthesis of Silver Nanostructures and Their Modification with Ultrashort Laser Pulses

Mantas Mikalkevičius, Mindaugas Juodėnas, Tomas Tamulevičius, Till Leißner, Asta Tamulevičiūtė

Single Particle Self-Assembly proved by Surface Lattice Resonance

Mindaugas Juodėnas, Tomas Tamulevičius, Joel Henzie, Donats Erts, Sigita Tamulevičiūtė

Electroless Deposition of Cu-Zn Alloys Using Co(III)/Co(II) Redox Couple as a Reducing Agent

Ina Stankevičiūtė, Aldona Jagminienė, Jūratė Vaičiūnienė, Eugenijus Norkus

Mechanically Polished Titanium Surface For Tethered Bilayer Lipid Formation

Tomas Sabirovas, Aušra Valiūnienė

Electroless Deposition of Cobalt-Nickel-Boron Coatings

Jūratė Vaičiūnienė, Zita Sukackienė, Ugnė Narkevičiūtė, Loreta Tamašauskaitė-Tamašiūnaitė, Eugenijus Norkus

Evaluation of Electrospun Nanofiber Structure

Virginija Kleivaitė, Rimvydas Milašius

Refractive Index Optical Fiber Sensors Applying Doped Diamond Films

Monika Kosowska, Daria Majchrowicz, Małgorzata Szczerska

ELECTRONIC AND OPTICAL MATERIALS

P39 Effect of the Film Morphology on Charge Trapping and Opto-Electronic Device Performance of Hybrid Perovskite Films

Andrey Kadashchuk, Alexander Vakhnin, Weiming Qiu

P40 Spectral Characterization of Native Defects in AlN Bulk and Nanopowder

Rihards Ruska, Janis Cipa, Baiba Berzina, Laima Trinkler

P41 GeSn Characterization by Nondestructive Optical Techniques

Tomas Jurgutis, Saulius Nargelas, Patrik Ščajev, Pavels Onufrijevs, Arturs Medvids, Hung Hsiang Cheng

P42 Anisotropic Thin Film Based Polarizing Coatings for High Power Lasers

Lukas Ramalis, Lina Grinevičiūtė, Rytis Buzelis, Tomas Tolenis

P43 Two-Dimensional Electron Gas Properties of GaN-Based High Electron Mobility Transistor Structures

Nerijus Armakavicius, Philipp Kühne, Jr-Tai Chen, Vallery Stanishev, Plamen P. Paskov, Sean Knight, Tino Hofmann, Olle Kordina, Vanya Darakchieva

P44 Effect of Molecular Beam Epitaxy Growth Conditions for Terahertz Sensing InGaAs Diodes

Domas Jokubauskis, Renata Butkutė, Linas Minkevičius

P45 Tunneling Luminescence Process Contribution in Afterglow of Strontium Aluminate Phosphors

Agnese Spustaka, Virgīnija Vītola, Donats Millers, Ivita Bite

- P46 Investigation of Cerium Doped LSO and LYSO Crystals by Optical Pump and Probe Technique**
Augustas Vaitkevičius, Saulius Nargelas, Andrey Fedorov, Vitaly Mechinsky, Mikhail Korjik, Gintautas Tamulaitis
- P47 Investigation of Chrome Doped Lead Ferrite Thin Films Synthesized by Reactive Magnetron Sputtering**
Benas Beklešovas, Vytautas Stankus
- P48 Preparation of Titanium Nitride Nanoparticles Via Gas Aggregation Source (GAS)**
Syeda Fatima Bukhari, Oleksandr Polonskyi, Jonas Drewes, Thomas Strunskus, Franz Faupel
- P49 Plasmonic Activity of Platforms Including Carbon Nanostructures**
Domantas Žitkauskas, Justina Gaidukevič, Jurgis Barkauskas, Gediminas Niaura
- P50 Fabrication of Electrochromic Urea Biosensor Based on Prussian Blue**
Giedrė Medvikytė, Aušra Valiūnienė, Povilas Virbickas
- P51 Spectral Analysis of Pyroelectric Luminescence in LiGaO₂ Single Crystal**
Janis Cipa, Laima Trinkler, Rihards Ruska, Baiba Berzina
- P52 Enhancing Photocatalytic Performance of TiO₂ Thin Films by Metallic Nanoparticles and Hybrid Oxide Nanostructures**
Salih Veziroglu, Josiah N. Shondo, Alexander Vahl, Oleksandr Polonskyi, Thomas Strunskus, Franz Faupel, Oral Cenk Aktas
- P53 MOCVD Epitaxy of GaN via Graphene**
Kazimieras Badokas, Arūnas Kadys, Ilja Ignatjev, Giedrius Juška, Jūras Mickevičius, Patrik Ščajev, Tadas Malinauskas
- P54 Analysis of Diffractive Structures Produced by Laser Interference Lithography**
Mindaugas Andrulevičius, Linas Puodžiukynas, Asta Guobienė
- P55 Influence of Alkali Metals on the Optical Properties of Glassy Silicon Dioxide**
Madara Leimane, Linards Skuja, Krisjanis Smits, Ivita Bite, Katrina Laganovska, Krisjanis Roze
- P56 Investigation of Reactive Magnetron Sputtering of Aluminium Oxynitride Films and Their Applications for Optical Coatings**
Naglis Kyžas, Alexandr Belosludtsev
- P57 Modelling Semiconductors Alloys Using Special Quasi-Random Structures**
Rokas Silkinis, Audrius Alkauskas
- P58 Graphite Based Diffractive Optical Elements for Terahertz Frequency Range**
Rusnė Ivaškevičiūtė, Linas Minkevičius, Andžėj Urbanovič, Lukas Laurinavičius, Rasa Pauliukaitė, Gintaras Valušis
- P59 An Algorithm for Designing True Color Dot-Matrix Holograms**
Tomas Klinavičius, Tomas Tamulevičius
- P60 Modelling the Interactions between Point and Dislocation Defects in Hexagonal Boron Nitride Using Force Fields**
Vytautas Žalandauskas, Audrius Alkauskas
- P61 The Effect of MBE Growth Parameters on Properties of GaAsBi Quantum Well Structures**
Algirdas Jasinskas, Sandra Stanionytė, Martynas Skapas, Bronislovas Čechavičius, Evelina Dudutienė, Renata Butkutė
- P62 THz Pulse Emission from Germanium Crystals**
Ričardas Norkus, Ignas Nevinskas, Arūnas Krotkus
- P63 Properties of Ultrafast Relaxation Dynamics of Plasmonic Aluminum Nanoparticles**
Domantas Peckus, Joel Henzie, Tomas Tamulevičius, Mindaugas Andrulevičius, Algirdas Lazauskas, Erika Rajackaitė, Šarūnas Meškiniš, Sigitas Tamulevičius
- P64 Usability of Chrome Doped Alumina in Dosimetry**
Ernests Einbergs, Aleksejs Zolotarjovs, Ivita Bite, Krisjanis Smits
- P65 Transfer of Optical Vortices in Coherently Prepared Media**
Hamid Reza Hamedi, Julius Ruseckas, Emmanuel Paspalakis, Gediminas Juzeliūnas
- P66 Influence of Indium Concentration on Morphology and Physical Properties of In-Doped ZnO Nanostructures**
Juliana Kepente, Ivita Bite, Larisa Grigorjeva, Agnese Spustaka, Krisjanis Smits, Anzelms Zukuls
- P67 Microwave-Assisted Synthesis and Properties of Non-Doped and Ga-Doped ZnO Nanoparticles**
Mareks Senko, Ivita Bite, Agnese Spustaka, Anzelms Zukuls, Larisa Grigorjeva, Krišjānis Šmits
- P68 New Substituted Triphenylamine Derivatives as Hole Transporting Materials for Red PHOLEDs**
Dovydas Blazevicius, Gintare Krucaite, Marius Eidimtas, Dmytro Volyniuk, Jurate Simokaitiene, Saulius Grigalevicius
- P69 Investigation of Properties of Triphenylamine Derivatives Containing Quaternary Ammonium Groups**
Matas Steponaitis, Regimantas Komskis, Egidijus Kamarauskas, Tadas Malinauskas, Saulius Jursenas, Vytautas Getautis
-

CERAMICS

| | |
|-----|---|
| P70 | Effect of Spherical Al₂O₃ Microceramics on Hardness and Wear Resistance of Composite Ni-based Coatings Aleksandr Lebedev, Jelena Škamat, Olegas Černašėjus |
| P71 | Influence of Ba²⁺-Doping on the Structural and Thermal Properties of La₂Mo₂O₉ Ceramic Giedrė Gaidamavičienė, Artūras Žalga |
| P72 | Sol-Gel Synthesis of Yttrium, Terbium Iron Perovskites and Yttrium Iron Garnet Justinas Januškevičius, Živilė Stankevičiūtė, Inga Grigoravičiūtė-Puronienė, Aivaras Kareiva |
| P73 | Bioactivity Research of the Bioglass-Calcium Phosphates Composites in SBF Laurynas Alinauskas, Zivile Stankeviciute, Gabija Zarembaite, Aleksej Zarkov, Lauryna Sinusaite, Aivaras Kareiva, Edita Garskaite |
| P74 | Study of Transition Metal Substitution Effects in Sol-Gel Derived Mg_{3-x}M_x/Al₁ (M = Mn, Co, Ni, Cu, Zn) Layered Double Hydroxides Ligita Valeikiene, Inga Grigoraviciute-Puroniene, Aivaras Kareiva |
| P75 | The Porous Mullite Ceramics Observed by Slip Casting Method Ludmila Mahnicka-Goremikina, Ruta Svinka, Visvaldis Svinka, Vadims Goremikins |
| P76 | Characterisation of Ceria Based Electrolytes Prepared by Glycine-nitrate Combustion and Co-precipitation Synthesis Routes Fariza Kalyk, Brigita Abakevičienė |

POLYMERS AND COMPOSITES

| | |
|-----|--|
| P77 | Investigation of Pyrrole Adsorption and Electrochemical Polymerization on Gold Surface Linas Sinkevičius, Deivis Plaušinitis |
| P78 | Optical Properties of Cu_xS Thin Films Deposited on Polypropylene by Sorption-Diffusion Method Kamilė Vonžodaitė, Eglė Balčiūnaitė, Rasa Alaburdaitė, Edita Paluckienė |
| P79 | Optical Properties of Cu-Doped Tin Selenide Films Aistė Kunciūtė, Remigijus Ivanauskas, Algimantas Ivanauskas |
| P80 | 4D Printing for Programmable Materials Donatas Valiulis, Eugenijus Jurkonis |
| P81 | Modification of Polyamide Films by Copper Selenide Layers Gediminas Jakubauskas, Neringa Petrašauskienė |
| P82 | Study of Morphological Properties of MWCNTs/PDMS Polymer Nanocomposites Iryna Sulym, Katarzyna Jankowska, Jakub Zdarta, Dariusz Sternik, Yuriy Sementsov, Anna Derylo-Marczewska, Filip Ciesielczyk, Teofil Jesionowski |
| P83 | Enhancement of Polypropylene–Epoxy Bond Adhesion by Gliding Arc Discharge with Cross Flow Gas Inlets Kateřina Polášková, Petr Jelínek, Filip Jeník, Lukáš Dostál, Lenka Zajíčková |
| P84 | Cathodic Electrodeposition and Optical Properties of Ni-Doped ZnO Films Konstantin Yanushkevich, Eugene Chubenko |
| P85 | Polymer Based Nanocomposites Modified with CNT/Bi₂Se₃ and CNT/Sb₂Te₃ Heterostructures for Thermoelectric Applications Krisjanis Buks, Jana Andzane, Juris Bitenieks, Janis Zicans, Donats Erts |
| P86 | Porous Hybrid Polyvinyl Alcohol Acetals Nanocomposites with Magnetic Laponite for Efficient Dyes Adsorption Olena Goncharuk, Yuriy Samchenko, Natalia Pasmurtseva, Lyudmila Kernosenko, Tetyana Poltorats'ka |
| P87 | Cholesterol Adsorption on Partially Hydrophobic Silica Nanoparticles from Solutions of Bile Salts Olga Kazakova, Nataliya Vlasova, Lyudmila Golovkova |
| P88 | Manufacturing of Continuous Carbon Fiber Reinforced Thermoplastic Composites Using FDM Technology Tomas Kuncius, Marius Rimašauskas |
| P89 | Study of Sensitivity to Glyphosate. Comparison of Differently Coated Gold Surfaces by Using ESPR Method Domas Balčiūnas, Deivis Plaušinitis |
| P90 | Influence of Melting Temperature on Mechanical Properties of Melt Spun Polypropylene and Polyethylene Terephthalate Fibers Evaldas Bolskis, Erika Adomavičiūtė |
| P91 | Sulfonated Poly(Ether Ether Ketone) Membranes and its Composite with Activated Carbon for Potential Application in CO₂ Electrochemical Reduction Cells Deniss Fedorenko, Guntars Vaivars |
| P92 | Influence of Betulin Doped on Bacteriostatic and Antiinflammatory Properties of Polycarbonates Mateusz Przybyła, Tomasz Flak, Jadwiga Gabor, Klaudia Kubik, Andrzej S. Swinarew |

P9 **Formation and Optical Properties of Zinc Oxide/Copper Composites**
Nikita Tkachenok, Eugene Chubenko

ADVANCED ENGINEERING MATERIALS

P94 **The Control of Quality of Graphene Layers Based on Their Ultrafast Relaxation Properties**

Erika Rajackaitė, Domantas Peckus, Rimantas Gudaitis, Tomas Tamulevičius, Mindaugas Andrulevičius, Šarūnas Meškiniš, Sigita Tamulevičiūtė

P95 **Influence of Parameters of Gridirons on the Cotton Fibres Cleaning and Yarns Quality**

Sharof Shukhratov, Rimvydas Milašius

P96 **Alternative Sources of Plant Nutrients**

Austėja Mikolaitienė, Rasa Šlinkšienė

P97 **Dependence of Woven Fabric Tearing on Weave Construction**

Brigita Legaudienė, Rimvydas Milašius

P98 **Synthesis of Well-Ordered Nano Structure of Anodic Aluminium Oxide Using Different Electrolytes**

Chiung Fen Chang, Nhat Huy Luan, Yesong Gu

P99 **Penetration of Esters, Derived from Vegetable Oils, into Anodized Coating for Friction Reduction**

Dalia Bražinskienė, Tadas Matijošius, Gedvidas Bikulčius, Svajus Asadauskas

P100 **Investigation of Pilling Resistance of Linen / Silk Woven Fabrics Dyed in Light and Dark Colours**

Indrė Tautkutė-Stankuvienė, Eglė Kumpikaitė

P101 **The Influence of Chromium and Aluminium Ions on the Calcium Silicate Hydrates Formation**

Inga Knabikaite, Kestutis Baltakys, Anatolijus Eisinas, Tadas Dambrauskas, Domante Niuniavaite

P102 **Investigation of the Thermoregulation Properties of Knitted Fabrics with Fibres Containing Phase Change Materials**

Laimutė Stygienė, Sigita Krauledas, Aušra Abraitienė Sandra Varnaitė-Žuravliova, Vitalija Rubežienė

P103 **Functional and Advanced Applications of Electro-Conductive Materials for Smart Textiles**

Md. Reazuddin Repon, Daiva Mikučionienė

P104 **Silver Plating of Polyacrylonitrile Graphite Fiber and Ball Milled Quartz for Electrically Conductive Application**

Nijolė Buškuvienė, Indrė Danisevičienė

P105 **Investigation of the Laser Treatment Parameters for the Creation of Reinforcing Ribs in Metal Thin Sheet Materials**

Oleksandr Kapustynskiy

P106 **Investigation on Influence of Antimicrobial Treatment on Structural and Physical Properties of Textile**

Jolita Kriščiūnaitė, Daiva Mikučionienė

P107 **Analysis of Latvian Sheep Breed Wool Chemical Composition and Properties**

Vanda Voikiva, Arturs Zarins, Gunta Kizane, Liga Avotina, Inesa Barmina, Maija Zake, Vita Rudovica

P108 **Material Properties of Bend Multilayered Wood Base Materials**

Inga Zotova, Edgars Kirilovs, Ilze Gutmane

P109 **Development of the Smart Materials Ecosystem in Latvia**

Gunars Bajars, Lauma Muižniece

MATERIALS FOR ENERGY APPLICATIONS

P110 **Fabrication and Properties of Pristine/Doped Bi₂Se₃ Nanolaminates**

Liga Britala, Krisjanis Buks, Jana Andzane, Aleksandrs Neciporenko, Malvine Nelda Strakova, Donats Erts

P111 **Development of Innovative Low Density Thermal Insulation from Wet-Preserved Hemp**

Edgars Kirilovs, Silvija Kukle, Hans-Jörg Gusovius, Inga Zotova

P112 **Ionic Liquid Additive Significantly Increases MAPbI₃ Perovskite Stability**

Rokas Jasiūnas, Rui Xia, Vidmantas Gulbinas, Mohammad Khaja Nazeeruddin, Paul Joseph Dyson

P113 **Efficient Catalytic Systems for Oxygen Reduction Reaction in PEM Fuel Cells**

Adriana Marinoiu, Claudia Cobzaru, Corina Cernatescu, Elena Marin, Radu Andrei, Catalin Capris, Elena Carcadea

P114 **Influence of TiO₂ *in situ* Doping With Graphene Nanoparticles on Electrochemical Properties**

Ainars Knoks, Liga Grinberga, Peteris Lesnicenoks, Ingars Lukosevics, Laimonis Jekabsons, Georgijs Cikvaidze

P115 **Graphite Felt Modification with Lead(II) Oxide Using Lead(II) Formate for Application in Lead Acid Batteries**

Arminas Ilginis, Egidijus Griškonis

P116 **Cobalt-Boron Alloy Modified with Gold Nanoparticles as Electrocatalysts for Glucose Electro-Oxidation**

Daina Upskuvienė, Zita Sukackienė, Aldona Balčiūnaitė, Birutė Šimkūnaitė-Stanyrienė, Loreta Tamašauskaitė-Tamašiūnaitė, Eugenijus Norkus

P117 **Thin Film Bismuth Selenide and Antimony Telluride Near-room Temperature Thermoelectric Generators**

Edijs Kauranens, Jana Andžāne, Uldis Maļinovskis, Donats Erts

P118 **XRD Studies of Tin Sulfide Layers on FTO Glass**

Asta Bronušienė, Ingrida Ancutienė

P119 Electrodeposition of a $\text{Mo}_{1-x}\text{W}_x\text{S}_2$ Material for Electrocatalysis of the Hydrogen Evolution Reaction

Ramunas Levinas, Natalia Tsyntsaru, Henrikas Cesiulis

P120 Neutron Irradiation Effects on the Oxidation Process of Beryllium in Nuclear Fusion Devices

Elina Pajuste, Gunta Kizane, Liga Avotina, Arturs Zarins

P121 Overshoot Effect in Triple Cation Perovskite Solar Cells

Rokas Gegevičius, Marius Franckevičius, Jevgenij Chmeliov, Vidmantas Gulbinas

P122 Synthesis and Characterization of New V886 Analogues

Aida Drevilkuskaitė, Marytė Daškevičienė, Egidijus Kamarauskas, Vygintas Jankauskas, Vytautas Getautis

OTHER

P123 Optical Glucose Biosensor Based on Cobalt Hexacyanoferrate and Glucose Oxidase Layers

Gabija Kavaliauskaitė, Povilas Virbickas, Aušra Valiūnienė