



## 16th INTERNATIONAL CONFERENCE-SCHOOL

### "Advanced Materials and Technologies"

27-31 August 2014, Palanga, Lithuania

Hotel "GABIJA"

Vytauto g. 40/S.Dariaus S.Girėno g. 2, Palanga

### PROGRAMME

#### August 27, Wednesday

14:00 – 20:00 Arrival and registration

#### August 28, Thursday

8:30 – 9:00 Registration

9:00 – 9:15 Opening

9:15 – 10:15 Antanas Daugela (ES HDD Design Center, Seagate Technology LLC, Minneapolis, USA)  
**Mechanical Nanoscale Characterization of Ultra-thin DLC Coatings**

10:15 – 11:45 Meyya Meyyappan (NASA)  
**Carbon based nano materials and application development**

11:45– 12:15 Coffee break

12:15 – 13:00 Tor Grande (Norwegian University of Sciences and Technology, Norway)  
**Synthesis, crystal structure and physical properties of novel perovskite nanomaterials**

13:00 – 13:45 Vidmantas Gulbinas (Center of Physical Sciences and Technology, Lithuania)  
**Charge carrier mobility as an important parameter determining operation of organic solar cells**

13:45 – 18.00 Break

18:00 – 22:00 Discussions and Welcome Party

#### August 29, Friday

8:30 – 9:00 Registration

9:00 – 9:45 Artūras Vailionis (Stanford University, USA)  
**Strain engineering in epitaxial perovskite oxide films: a route for functional materials design**

9:45 – 11.15 Jürg Hulliger (Department of Chemistry and Biochemistry, University of Bern, Switzerland)  
**Magnetic Separation Technique in Solid State Chemistry**

11:15 – 11:45 Coffee break

11:45 – 12:45 Juris Purans (University of Latvia, Latvia)  
**Applications of synchrotron radiation in material science**

12:45– 13:30 Anatoli Sidorenko (Institute of Electronic Engineering and Nanotechnologies ASM, Moldova)  
**Memory Effect in Superconductor/Ferromagnet nanostructures and Superconducting Spintronics**

13:30 – 16:00 **Break**  
16:00 – 22:00 **Excursion**

**August 30, Saturday**

8:30 – 9:00 **Registration**  
9:00 – 10:00 Leonas Valkūnas (Center of Physical Sciences and Technology, Lithuania)  
**Light-harvesting in natural and artificial photosynthesis**  
10:00 – 10:45 Alexey Bubnov (Institute of Physics, Academy of Sciences of the Czech Republic)  
**New multifunctional liquid crystalline materials**  
10:45– 11:30 Žilvinas Rinkevičius (KTH Royal Institute of Technology, Sweden)  
**Quantum chemical modeling of dye synthesized solar cells**  
11:30– 12:00 **Coffee break**  
12:00 – 12:45 Tadas Malinauskas (Kaunas University of Technology, Lithuania)  
**Organic materials in the dye-sensitized and meso-structured solar cells**  
12:45 – 13:30 Artūras Katelnikovas (Department of Analytical and Environmental Chemistry, Vilnius University, Lithuania)  
**New luminescent materials: synthesis and characterization**  
13:30 – 14:30 Jürg Hulliger (Department of Chemistry and Biochemistry, University of Bern, Switzerland)  
**Channel inclusion compounds and Markov type polarity formation**  
14:30 – 16:30 **Break**  
16:30 – 18:30 **Poster Session**

**August 31, Sunday**

8:30 – 9:15 Edik Rafailov (University of Dundee, UK)  
**High output and ultra-short pulses semiconductor lasers: technology and applications in biophotonics**  
9:15 – 10:00 Irmantas Kašalynas (Center of Physical Sciences and Technology, Lithuania)  
**Compact spectroscopic terahertz imaging systems**  
10:00 – 10:45 Renata Butkutė (Center of Physical Sciences and Technology, Lithuania)  
**Technology and Applications of Dilute Bismides**  
10:45 – 11:30 Karlis A. Gross (Institute of Biomaterials and Biomechanics Riga Technical University, Latvia)  
**Towards Biotechnological Processing of Calcium Phosphates**  
11:30 – 12:00 **Closing remarks**

METHODS OF SURFACE ANALYSIS

P1	<b>M. Kārklis, Yu. Dekhtyar, M. Romanova</b> <i>Surface Electric Potential of P(VDF-TrFE) Nanolayers under Influence of Ultraviolet Radiation</i>
P2	<b>A. Klovas, M. Daukšys</b> <i>The Influence of Coarse Aggregate Concentration to the Concrete Mixture's Rheological Properties and Formed Concrete's Surface Quality</i>
P3	<b>L. Mikoliūnaitė, A. Ramanavičius</b> <i>Functionalised Atomic Force Microscopy for the Protein Modified Surface Analysis</i>
P4	<b>I. Morkvenaite-Vilkonciene, A. Kisieliute, J. Voronovic, A. Ramanaviciene, A. Ramanavicius</b> <i>Investigation of Electrochemical Activity of Saccharomyces Cerevisiae by Scanning Electrochemical Microscopy</i>
P5	<b>S. Sidorenko, L. Sidorenko, I. Sidorenko, A. Vaseashta</b> <i>Behavior Pattern Recognition as a New Method of Threats Identification</i>

SURFACE ENGINEERING AND NANOSTRUCTURES

P6	<b>L. Alinauskas, R. Raudonis, D. Brazinskiene, E. Garskaite</b> <i>Templated Tin Oxide Nanostructures Produced by a Sol-Gel Method</i>
P7	<b>M. Baitimirova, G. Kunakova, F. Lombardi, D. Erts, J. Andzane</b> <i>Graphene/Bismuth Chalcogenide Layered Structures for Thermoelectric Applications</i>
P8	<b>J. Baltusnikaite, P. Bekampiene, A. Abraitiene, D. Kimmer, J. Blahová</b> <i>Formation of Gradient Interfacial Nanolayer Intended for Fiber-Reinforced Plastic Composites</i>
P9	<b>D. Baziulyte, S. Sakirzanovas</b> <i>Influence of Reaction Temperature and Molar Ratio of Solvents on Upconverting Nanoparticles Size and Morphology</i>
P10	<b>I. Bite, G. Kunakova, R. Meija, J. Kosmaca, G. Petersons, J.D. Holmes, D. Erts</b> <i>Bi<sub>2</sub>S<sub>3</sub> Nanowire's Electrical Response to Water Molecules in Gaseous State</i>
P11	<b>A. Brudzisz, A. Jeleń, A. Brzózka, G. D. Sulka</b> <i>Unique Properties of Nanostructured Ag Electrodes toward Reduction of Toxic Aliphatic Chlorides in Water</i>
P12	<b>M. Cyza, R. Szybka, S. Rissanen, T. Róg, M. Nowakowska, M. Kępczyński</b> <i>Interaction Between Piroxicam and Liposomal Nanostructured Carriers</i>
P13	<b>Yu. Dekhtyar, A. Kosa-Bārs, Š. Meškinis, M. Romanova, S. Tamulevičius</b> <i>Diamond-Like Carbon Nanofilm for Application in UV Radiation Nanodosimetry</i>
P14	<b>M.V. Galaburda, V.M. Bogatyrov, J. Skubiszewska-Zięba, I.V. Urubkov</b> <i>Magneto-Sensitive Nanostructured Carbon Materials</i>
P15	<b>U. Gertners, J. Teteris</b> <i>All-optical Surface Patterning in Amorphous Thin Films</i>
P16	<b>A. Gut, Ł. Łapok, M. Cyza, M. Kępczyński, G. Szewczyk, T. Sarna, M. Nowakowska</b> <i>Synthesis and Photophysical Characterization of Novel Trifluoromethyl and Iodine Groups Bearing PDT Active Phthalocyanines</i>
P17	<b>A. Iwanowska, A. Mikulska, K. Szczubiałka, M. Nowakowska</b> <i>Hybrid Molecularly Photoimprinted Adenine Containing Adsorbent</i>
P18	<b>I. Yaremchuk, V. Fitio, B. Vladyka, Ya. Bobitsk</b> <i>Design and Analysis of Grating-Based Filter for Infrared Region</i>
P19	<b>L. Jasulaneca, R. Meija, A. Livshits, J. Prikulis, J. D. Holmes, D. Erts</b> <i>Measuring Young's Modulus of Sb<sub>2</sub>S<sub>3</sub> Nanowires</i>
P20	<b>M. Juodėnas, D. Virganavičius, T. Tamulevičius</b> <i>Modelling of Periodic Structures Integrated in Microfluidic Devices for Optical Refractive Index and Pressure Sensors</i>
P21	<b>A. Kaczyńska, A. Karewicz, J. Lewandowska-Łańcucka, M. Nowakowska</b> <i>Antibody-Modified Superparamagnetic Iron oxide Hybrid Nanoparticles for Advanced Applications</i>
P22	<b>A. Kalpakovaitė, T. Grinys</b> <i>Formation and Investigation of Plasmonic Filters on GaN Based Structures</i>
P23	<b>K. Kłysik, M. Łukasiewicz, A. Karewicz, M. Nowakowska</b> <i>Liposomes Stabilized by Thin Polymeric Films as Alkaline Phosphatase Nanocarriers</i>
P24	<b>A. Knoks, J. Kleperis</b> <i>Growth of TiO<sub>2</sub> Nanotubes by Electrochemical Anodization</i>

- P25** A. Kosa-Bars, Yu. Dekhtyar, M. Romanova *Diamond-Like Carbon Nanofilm for Application in UV Radiation Nanodosimetry*
- P26** T.B. Krupska, V.V. Turov *Encapsulation of Bioobjects by Hydrophobic Silica*
- P27** V. Markovic, O. Cernosejus *Experimental Research of Metal Surface Structuring by Laser*
- P28** R. Meija, K. Petersons, J. Andzane, L. Jasulaneca, J. Kosmaca, A. Livshics, J.D. Holmes, D. Erts *Contact Properties in Ge Nanowire Based Nanoelectromechanical Systems*
- P29** U.S. Nyemchenko, V.M. Beresnev, A.D. Pogrebnyak, O.V. Sobol, P.V. Turbin *Structure, Physical and Mechanical Properties of Nanocomposite Coatings of (Zr-Ti-Cr-Nb)N System, Obtained by Means of Vacuum-Arc Sputtering*
- P30** H. Petrovska, V. Fitio, P. Stakhira, I. Yaremchuk, V. Cherpak, Ya. Bobitski *Resonance Gain of the Waveguide Mode in the Structure: Glass Prism - Dielectric Layer – a Layer of Organic Semiconductor*
- P31** J. Prikulis, I. Apsite, J. Janukovica, R. Poplauskas, G. Bergs, D. Erts *High Density Plasmonic Nanostructure Layers Obtained Using Porous Anodized Aluminum Oxide Membranes*
- P32** S. Pupkevičiūtė, E. Adomavičiūtė, S. Stanys, A. Matusevičiūtė, I. Prosyčėvas *The Influence of Silver Nanoparticles on the Morphology of Electrospun Nonwoven Materials*
- P33** D. Sakalauskas, S. Sakirzanovas *Synthesis of Strontium Yttrium Fluorides via. Reversed Micelle Method*
- P34** K. Syrek, J. Kapusta-Kołodziej, G. D. Sulka *Photoelectrochemical Properties of Nanoporous Anodic Titanium Dioxide*
- P35** A. Survila, S. Kanapeckaitė *Electrochemical Properties of Camphor-Modified Copper Electrodes*
- P36** L. Šimatonis, D. Virganavičius, T. Tamulevičius, S. Tamulevičius *Automated Lloyd's Mirror Holographic Lithography Setup*
- P37** A. Tikhanova, K. Girel, H. Bandarenka, V. Bondarenko *Plasmonic Properties of Nanostructured Copper Films on Porous Silicon*
- P38** A. Valiūnienė, Ž. Margarian, R. Valiūnas *Electrochemical Utilization of Cyanide on a Platinized Ti Electrode*
- P39** T. Vanagaitė, Ž. Margarian, I. Balevičiūtė, A. Valiūnienė, G. Valinčius *Formation of Hybrid Bilayer on Silanized Ti/TiO<sub>2</sub> Electrode Using 1,2-Dioleoyl-sn-Glycero-3-Phosphocholine Vesicles*
- P40** E. Wierzbicka, G.D. Sulka *Nanostructured Gold Electrodes Fabrication and Their Application for an Electrochemical Adrenaline Sensor*
- P41** L. Zaraska, M. Bobruk, E. Wierzbicka, G.D. Sulka, M. Jaskuła *The effect of anodizing parameters on the formation of nanostructured tin oxides during anodic oxidation*
- P42** A.S. Zharkov, E.A. Petrov *Properties of the Composites with Carbon Nano-Materials*

#### ELECTRONIC AND OPTICAL MATERIALS

- P43** T. Andrijauskas, G. Juzeliūnas *Flux Lattices for Periodically Driven Ultra-Cold Atoms*
- P44** G. Braziulis, A. Zalga *Aqueous Sol-Gel Synthesis of the Ba-Mo-O-(Eu<sup>3+</sup>) Powders*
- P45** I. Černiukė, B. Vengalis, G. Grigaliūnaitė-Vonsevičienė *Low Field Magnetoresistance Anomaly in La<sub>0.67</sub>Sr<sub>0.33</sub>MnO<sub>3</sub> Thin Films*
- P46** J. Garankin, A. Plukis, E. Lagzdina, R. Plukienė, M. Gaspariūnas *Application of Thin PEN Film Scintillator for Identification of Particles of Ionizing Radiation*
- P47** Z. Gričius, A. Zalga *Preparation of Phosphor Eu<sub>2</sub>Mo<sub>3</sub>O<sub>12</sub> by Citric Acid Assisted Sol-Gel Method*
- P48** L. Grinevičiūtė, L. Puodžiukynas, M. Andrulevičius *Optimization of Rainbow Holograms Formation Processes*
- P49** A.J. Janavičius, R. Purlys, S. Daugėla, R. Rinkūnas *Defects Irradiated in Cz-Si by Soft X-rays*
- P50** J. Jurkevičius, J. Mickevičius, G. Tamulaitis, M. S. Shur, M. Shatalov, J. Yang, R. Gaska *Photoluminescence Efficiency Dependence on Carrier Localization Conditions in AlGaIn Epilayers and Quantum Wells*
- P51** K. Kazlauskas, A. Bieliauskas, G. Kreiza, E. Arbačiauskienė, V. Getautis, A. Šačkus, S. Juršėnas *Synthesis and Study of Phenylendiacetonitrile Molecules Functionalized with Pyrazole Moieties as Highly Fluorescent Nanoparticles*

- P52** H. Klym, A. Ingram, O. Shpotyuk *Evolution of Free-Volume Entities in Ge-Ga-S Chalcohalide Glasses with CsCl Additives*
- P53** J. Kosmaca, J. Andzane, G. Kunakova, G. Petersons, J.D. Holmes, D. Erts *Application of Dielectrophoresis for Controlled Graphene Strip Covering with Semiconductor Nanowires*
- P54** O.S. Mazur, I.R. Magunov *Optical Materials for Infrared Optics*
- P55** V. Mecnika, M. Hoerr, A. Schwarz, I. Krieviņš, T. Gries, S. Jockenhövel *Textile-Based Humidity Sensor by Embroidery Technology*
- P56** D. Peckus, A. Gustainytė, M. Franckevičius, T. Tamulevičius, S. Tamulevičius, V. Gulbinas *Excited State Dynamics of Organic Molecules Adsorbed on the Metal Nanoparticles*
- P57** D. Peckus, T. Tamulevičius, Š. Meškiniš, A. Tamulevičienė, A. Čiegis, A. Vasiliauskas, O. Ulčinis, S. Tamulevičius *Ultrafast Relaxation Dynamics of Localized Surface Plasmons in Ag and Cu Nanocomposites*
- P58** A. Petruilis, A. Tuzikas, P. Vitta, R. Vaicekuskas, A. Žukauskas *Kruithof Rule and Circadian Lighting Tests in an Outdoor Environment using a Smart Solid-State Lighting Engine*
- P59** Ł. Rodzik, J. Lewandowska-Łańcucka, M. Nowakowska *Novel Conjugates Based on Thiol-Stabilized CdTe Quantum Dots and Purines/Pyrimidines as Potential Fluorescent Sensors – Synthesis and Characterization*
- P60** A. Zabaliūtė, S. Butkutė, A. Žukauskas, P. Vitta, A. Kareiva *Far-Red Cr-Doped Garnet Phosphors for Phosphor-Conversion LEDs that Meet the Photomorphogenetic Needs of Plants*

#### CERAMICS

- P61** V.A. Bartak, V.O. Chyshkala *Production of Porous Ceramics from Nanopowders of Zirconia and Investigation of Its Structure*
- P62** I. Bogdanoviciene, R. Traksmas, A. Kareiva, K. Tõnsuaadu *Sol-Gel Synthesis and Characterization of Sr, Zn and Na Substituted CaHA Based Bioceramic Materials*
- P63** S. Kazlauskas, A. Kežionis, A.F. Orliukas *Effect of Sintering Temperature and Time on Ionic Conductivity of Samarium-Doped Ceria Ceramics*
- P64** A. Minikauskas, P. Žvirblis, V. Valančienė, G. Denafas *Stabilization of Conversion Coating Waste in the Ceramic Matrixes: Fluorides Behaviour at High Temperatures*
- P65** Z. Stankeviciute, R. Raudonis, M. Malakauskaite-Petruleviciene, A. Kareiva *Formation of Calcium Hydroxyapatite (CHAp) Thin Films on Ti Substrate Using Spin-Coating*
- P66** I. M. Trofymchuk, N.V. Roik, L.A. Belyakova *Hydrothermal Synthesis of Hexagonally Ordered Mesoporous Silicas Using Hybrid Template System*

#### POLYMERS AND COMPOSITES

- P67** T. M. Budnyak, E. S. Yanovska, V. A. Tertykh *Biopolymer Chitosan Immobilized on Surface of Aminosilica for Adsorption of Heavy Metals from Aqueous Solutions*
- P68** R. Dobužinskas, K. Arlauskas, A. Poškus, J. Varpučianskis *Influence of X-rays to electric features of organic-inorganic layers sensitized by PbO and PbI<sub>2</sub>*
- P69** T. Flak, J. Gabor, M. Łęźniak, G. Nowicki, M. Galeja, A. S. Swinarew *Novel Transparent Luminescent Polymers for Automotive Applications*
- P70** M. Galeja, T. Flak, G. Nowicki, A.S. Swinarew *Designing a Holder for Absorbent Material in Oncology Application Using FDM 3D Printing Method*
- P71** O. Goncharuk, K. Terpiłowski, V. Zarko *Effect of PEG Adsorption on Stability of Aqueous Suspensions of Fumed Silica*
- P72** M. Łęźniak, J. Gabor, T. Flak, Z. Grobelny, J. Jurek, A.S. Swinarew *Novel Initiation Procedure for PU Application*
- P73** A. Lisauskaitė, V. Jankauskaitė *Silicone Rubber and Multifunctional Nanocellulose Composites Properties, Structure and Antibacterial Effect*
- P74** I. Narica, O. Kononova *Modulation of Fiber Movement in Viscose Fluid Flow*
- P75** G. Nowicki, T. Flak, J. Gabor, M.Łęźniak, M. Galeja, A. Swinarew *New Generation Materials for 3D Print Technology*

- P76** I.Ya. Sulym *Hydrophilic/Hydrophobic Properties TiO<sub>2</sub>/PDMS Composites Depending on the Treatment Temperature*
- P77** I. Sulym, E. Skwarek, O. Goncharuk, W. Janusz *Electrosurface Properties of CeO<sub>2</sub>-ZrO<sub>2</sub>/SiO<sub>2</sub> and TiO<sub>2</sub>-ZrO<sub>2</sub>/SiO<sub>2</sub> Nanocomposites*
- P78** V. Venckutė, A. F. Orliukas, Kuan-Zong Fung *Synthesis and Characterization of Li<sub>1.3</sub>Al<sub>0.15</sub>Y<sub>0.15</sub>Ti<sub>1.7</sub>(PO<sub>4</sub>)<sub>3</sub> Solid Electrolyte*

#### ADVANCED ENGINEERING MATERIALS

- P79** A. Bubnov, V. Domenici, V. Hamplová, J. Milavec, B. Zupančič, D. Pocięcha, M. Kašpar, B. Zalar *Siloxane-Based Side-Chain Liquid Single Crystal Elastomers*
- P80** G. Busilienė, E. Strazdienė *The Investigation of 3D Weft Knitted Fabrics Performance Properties*
- P81** V. Kepenienė, L. Tamašauskaitė-Tamašiūnaitė, J. Vaičiūnienė, R. Kondrotas, V. Pakštas, E. Norkus *Investigation of Niobium(V) Oxide/Carbon Supported Pt Electrocatalysts for the Ethanol Oxidation*
- P82** S.Khalameida, V.Sydorchuk, J.Skubiszewska-Zięba, R. Leboda, V.Zazhigalov *Modification of Nb<sub>2</sub>O<sub>5</sub> as Catalyst for Pollutants Degradation in Aqueous Solutions*
- P83** A. Lazauskas, V. Grigaliūnas, S. Tamulevičius, A. Guobienė *Micropatterning of Graphene Features from Direct Laser Induced Reduction of Graphene Oxide*
- P84** B. Lenkevičiūtė, M. Vitkus, G. Juška, K. Arlauskas, K. Genevičius *Investigation of Electroluminescence Features of Vacuum Deposited Organic Materials TPD, Ir(Fppy)<sub>3</sub>, AlQ<sub>3</sub> and Spin-coated CdS<sub>x</sub>Se<sub>1-x</sub>/ZnS Quantum Dots Layers*
- P85** V. Lasis, A. Krasnikovs *High Efficiency Nano Concrete with Polymer Fiber in Thin Wall Shell Structures*
- P86** A. Pawlik, M. Jarosz, M. Jaskuła, G. D. Sulka *Drug Delivery from Nanoporous Titanium Dioxide Layers*
- P87** D. Rymuszka, K. Terpiłowski, L. Holysz *Surface Properties Changes of Selected Polymers after Plasma Treatment*
- P88** D. Rymuszka, K. Terpiłowski, L. Holysz, E. Goncharuk, I. Sulym *Silica Composites Surface Properties Deposited on Glass*
- P89** V. Rumbauskas, A. Mekys, J. Storasta, J. V. Vaitkus *Silicon Doped Germanium for Radiation-Hard Devices*
- P90** V. Sydorčuk, S. Khalameida, J. Skubiszewska-Zięba, R. Leboda, V. Zazhigalov *The Use of Ball Milling for Synthesis of Bismuth Vanadate*
- P91** E. Skwarek *The Influence of Carbonate Ions on the Structure of the Electrical Double Layer at the Interface: Hydroxyapatite / Electrolyte Solution*
- P92** E. Skwarek, W. Janusz, D. Sternik, S. Skupiński *Adsorption of the Proteins on Hydroxyapatite Synthesized by Various Methods*
- P93** E.Skwarek, W.Janusz, R.Łyszczek *Thermal Analysis of Hydroxyapatite with Adsorbed of Oxalic Acid*
- P94** E.Skwarek, W.Janusz, S.Skupiński *The Study Structure of the Electrical Double Layer at the Interface of the Samples of Variable Stoichiometry of Hydroxyapatite Ca: P / Electrolyte*
- P95** J. Waś, M. Długosz, K. Szczubiałka, M. Nowakowska *Floating Photocatalyst Based on TiO<sub>2</sub>-Coated Perlite for Water Purification*
- P96** M. Wiśniewska, K. Szewczuk-Karpisz, I. Ostolska *The Comparison of Lysozyme and Bovine Serum Albumin Adsorption Influence on Electrical Double Layer Structure of Chromium(III) Oxide Particles*
- P97** M. Wiśniewska, S. Chibowski, T. Urban *The Adsorption Properties of Anionic Polyacrylamide on the Al<sub>2</sub>O<sub>3</sub> and Cr<sub>2</sub>O<sub>3</sub> Surfaces*
- P98** M. Wiśniewska, I. Ostolska, K. Szewczuk-Karpisz, K. Terpiłowski, A. Nosal-Wiercińska *Electrokinetic Properties of the Ionic Polyamino Acid/ Colloidal Cr<sub>2</sub>O<sub>3</sub> System in the Presence of Calcium Ions*
- P99** M. Wiśniewska, I. Ostolska, K. Szewczuk-Karpisz, K. Terpiłowski, V.I. Zarko, V.M. Gun'ko *Comparison of the Poly(vinyl alcohol) Adsorption on the Mixed Oxides with Different Structure*
- P100** D. Zubauskiene, E. Strazdiene *The Effect of Friction during Punch Loading*

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## MATERIALS FOR ENERGY

- P101** A. Balčiūnaitė, L. Slauto, L. Tamašauskaitė-Tamašiūnaitė, A. Jagminienė, J. Vaičiūnienė, R. Kondrotas, E. Norkus *Synthesis of the Graphene Supported Gold-Cobalt Nanocomposites and Their Application in Alkaline Fuel Cells*
- P102** Y. Barushka, H. Tee, M. Kahk, D. Payne, E. Garskaite *Deposition of Cu<sub>2</sub>O Microspheres and Crystals on FTO/ITO Glass – a Material for Solar Water Splitting*
- P103** J. Lapins, L. Avotina, G. Kizane, M. Halitovs *Raman Spectra Investigation of Plasma Irradiated Carbon Based Outer Divertor Materials of the JET*
- P104** P. Lesnichenoks, J. Zemitis, J. Kleperis, G. Dobele *Research of Hydrogen Sorption and Bonding in Different Carbon Materials Prepared from Wood Coal and Raw Graphite*
- P105** E. Pajuste, G. Kizāne, L. Avotiņa *Nano-Structure Evolution of Multilayered Metallic Coatings During Exploitation in JET Plasma Chamber*
- P106** J. Raudoniene, L. Sinkevicius, R. Raudonis, E. Garskaite *Silver Phosphate Synthesis and Its Application in Photocatalytic Water Splitting*
- P107** J. Sakaliūnienė, E. Rajackaitė, B. Abakevičienė, S. Tamulevičius *Characterization of Gadolinia Doped Ceria Electrolyte Prepared by co-Precipitation Synthesis Method*
- P108** L. Tamašauskaitė-Tamašiūnaitė, M. Semaško, V. Kepenienė, J. Vaičiūnienė, R. Kondrotas, E. Norkus *Electrocatalytic Activity of Reduced Graphene Oxide Supported Platinum-Nickel and Platinum-Nickel-Titania Nanoparticles towards the Electro-Oxidation of Methanol*
- P109** L. Tamašauskaitė-Tamašiūnaitė, A. Taujenytė, A. Žielienė, B. Šimkūnaitė-Stanyrienė, L. Naruškevičius, A. Selskis, R. Juškėnas, E. Norkus *Formation of Cu<sub>2</sub>ZnSnS<sub>4</sub> by the SILAR and CBD Methods*
- P110** A. Magomedov, V. Jankauskas, V. Getautis *Novel Hydrazone-Based Photoconductive Polymers*
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## OTHERS

- P111** M. Gawel, J. Gabor, A. Swinarew *Chromatographic methods as modern technics for early diagnosis of bowel cancer*
- P112** A. Guia, A. Swinarew, T. Flak *Using spectrofluorometer as a tool in initial diagnosis of colorectal cancer*
- P113** P. Tokarz, M. Łęźniak, M. Petelenz, A. Swinarew *New ways of bowel cancer detecting! Methods of using spectral and chromatographic techniques to determine the detection thresholds of chemical compounds in bowel contents*
- P114** I. Beleckaitė, A. Krotkus, R. Adomavičius, J. Sadowski, A. Reszka, A. Šiušys *Terahertz Pulse Emission Features of GaAs/InGaAs, GaAs/InGaAs/GaMnAs and GaAs/GaMnAs Nanowires*
- P115** P. Cicėnas, A. Bičiūnas, A. Arlauskas, J. Adamonis, A. Krotkus *Terahertz pulse emission from photoexcited surfaces of tellurium crystals*
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