Programme of the 22nd International Conference-School

"Advanced Materials and Technologies 2020"

Date: 24-28 August 2020

Venue: Hotel "Gabija" (http://www.gabija.lt/en/)
Vytauto st. 40,
Palanga, 00160
Lithuania

August 24, Monday

14:00 – 20:00 **Arrival and registration**

August 25, Tuesday *Chairman Sigitas Tamulevičius*

8:30 – 9:00 **Registration**

9:00 – 9:15 **Opening**

9:15 – 10:00 **Linas Vilčiauskas** (Center for Physical Sciences and Technology, Lithuania)
Introduction to the World of Batteries: Aqueous vs. Non-aqueous Electrolytes

10:00 – 10:45 **Justina Gaidukevič** (Vilnius University, Lithuania)
Graphene-based Materials and Their Applications for Energy Storage and Catalysis

10:45 – 11:00 **Coffee Break**

11:00 – 11:45 **Hyeong-Jin Kim** (Gwangju Institute of Science and Technology, Korea)
Effects of Inserting Cobalt/Copper Metal on Electrochemical Properties in Si Anode for Lithium-ion Batteries

11:45 – 12:30 **Aivaras Kareiva** (Vilnius University, Lithuania)
Inorganic Chemistry and Medicine

12:30 – 14:00 **Break**

14:00 – 16:00 **Social Event: 3x3 Basketball Tournament (Palanga Sports Center, Sporto str. 3, Palanga, http://www.sportpalanga.lt/index.php?id=2042&lang=en)**

16:00 – 18:00 **Break**

18:00 – 21:00 **Discussions and Welcome Party**

August 26, Wednesday *Chairman Donats Erts*

8:30 – 9:00 **Registration**

9:00 – 9:45 **Jana Andžāne** (University of Latvia, Latvia)
Unusual Properties of Conventional Materials: Topological Insulators for Thermoelectrics and Metrology

9:45 – 10:30 **Gunnar Suchaneck** (Dresden University of Technology, Germany)
Synthesis of Complex Oxide Thin Films by Means of Reactive Multitarget Sputtering

10:30 – 10:45 **Coffee Break**

10:45 – 11:30 **Liudas Mažeika** (Kaunas University of Technology, Lithuania)
Ultrasonic Measurements: Possibilities and Applications

11:30 – 12:15 **Iryna Yaremchuk** (Lviv Polytechnic National University, Ukraine)
Waveguide, Plasmon Polariton and Plasmon Resonance Effects by Micro- and Nanostructures

12:15 – 12:30 **Coffee Break**

12:30 – 13:30 **Ashok Vaseashta** (International Clean Water Institute, USA)
Nanomaterials for Mitigating Nano/Microplastics in Environment

13:30 – 16:00 **Break / Meeting of Lithuania-Latvia-Taiwan project "2D nanostructures of noble metal nanoparticles for biosensors application"**

16:00 – 22:00 **Social Event: Orienteering Competition ("HBH Palanga", Žibininkų vlg., http://www.hbh.lt/)**

August 27, Thursday *Chairman Aivaras Kareiva*

SPINMULTIFILM Day

8:30 – 9:00 **Registration**

9:00 – 10:30 **Andres Öpik** (Tallinn University of Technology, Estonia)
Molecular Imprinting – Opportunities and Challenges

10:30 – 10:45 **Coffee Break**

10:45 – 11:30 **Gunnar Suchaneck** (Dresden University of Technology, Germany)
Electrical Resistance and Magnetoresistance in Strontium Ferromolybdate Ceramics with Strontium Molybdate Dielectric Intergrain Barriers

11:30 – 12:15 **Nikolai Sobolev** (University of Aveiro, Portugal)
Magnetic Memory – *Quo Vadis*?

12:15 – 14:30 **Break / Meeting of Horizon 2020 project "Physical principles of the creation of novel spintronic materials on the base of multilayered metal-oxide FILMs for magnetic sensors and MRAM" (SPINMULTIFILM)**

14:30 – 17:30 **Poster Sessions** *Chairman Tomas Tamulevičius*

14:30 – 15:30 Poster Session A

15:30 – 16:30 Poster Session B

16:30 – 17:30 Poster Session C

17:30 – 18:00 **Best Poster Awards and Conference photo**

August 28, Friday *Chairman Gunnar Suchaneck*

9:00 – 9:45 **Juras Ulbikas** (Applied Research Institute for Prospective Technologies, Lithuania)
What Does it Mean to Go for Shockley-Quiesser Limit on Industrial Level Technology: Case of Si Technology

9:45 – 10:30 **Hubert Halbritter** (OSRAM Opto Semiconductors, Germany)
Driven by Light – the World of Tomorrow

10:30 – 10:45 **Coffee Break**

10:45 – 11:30 **Presentations of the Best Poster Awards Winners**

11:30 – 12:00 **Certificates and Closing Remarks**

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Vytauto Str. 40, LT-00160
Palanga, Lithuania

Poster Sessions. August 27, Thursday, 14:30 – 17:30

Poster Session A 14:30 – 15:30

METHODS OF SURFACE ANALYSIS

P1	**Exchange of Optical Vortices Using Coherent Population Trapping** Hamid Reza Hamedi, Emmanuel Paspalakis, Giedrius Žlabys, Gediminas Juzeliunas, Julius Ruseckas
P4	**Fly Ashes Physical Properties and Chemical Composition** Dovilė Ragauskaitė, Rasa Šlinkšienė
P7	**Carbon Detection in Surface of Soils** Anta Gailisa, Katrina Laganovska, Krisjanis Smits
P10	**Structures of Human Human Growth Antibodies Studied by Scanning Electrochemical Microscopy** Aura Kisieliute, Inga Morkvenaite Vilkonciene, Anton Popov, Benediktas Brasiunas, Almira Ramanaviciene, Arunas Ramanavicius

SURFACE ENGINEERING AND NANOSTRUCTURES

P13	**Fabrication of Gold Nanoparticles on ITO Substrates using Nanosecond Laser and their Potential Applications** Evaldas Stankevičius
P16	**SECM and EIS Characterisation of Fluorine Doped Tin Oxide Glass Application for Phospholipid Membrane Formation** Inga Gabriunaite, Margarita Poderyte, Aušra Valiūnienė
P19	**Towards Application of ZnO Nanowires in Optical Biosensor Design** Vincentas Maciulis, Ieva Plikusiene, Octavio Graniel, Mikhael Bechelany, Saulius Balevicius, Vilius Vertelis, Zigmas Balevicius, Anton Popov, Arunas Ramanavicius, Almira Ramanaviciene
P22	**Synthesis of ZnO Nanowires and Their Use in Alternating Current Driven Oxide Powder Electroluminescent Elements** Ēriks Vilunas, Katrīna Laganovska, Ivita Bite, Krišjānis Šmits, Edgars Butanovs
P25	**Mechanical, Electrical and Morphological Characterization of CuO Nanowires Grown by a Modified Thermal Oxidation Method** Raitis Sondors, Jelena Kosmaca, Gunta Kunakova, Liga Jasulaneca, Matiss Martins Ramma, Raimonds Meija, Edijs Kauranens, Mikk Antsov, Donats Erts
P28	**Low Temperature Plant Drying Method Based on the Control of the Relative Humidity** Mykyta Kovalenko, Marius Šumanas, Daniela Senkevič, Nikita Edgar Sitiajev, Andrius Dzedzickis, Vytautas Bučinskas, Inga Morkvėnaitė-Vilkončienė
P31	**Characterization of Electrical and Thermoelectric Properties of Sn-doped Bi_2Se_3 Ultrathin Films** Andrei Felsharuk, Kiryl Niherysh, Jana Andzane, Donats Erts
P34	**New Features of Mesoporous Silicon Structure** Nadzeya Khinevich, Sergey Zavatsky, Hanna Bandarenka, Sigitas Tamulevičius, Vitaly Bondarenko
P37	**Temperature Behavior of Monolithic Xerogels, Doped with Nanoparticles of Erbium and Ytterbium Oxides** Iryna Sulym, Mykola V. Borysenko, Dariusz Sternik, Anna Derylo-Marczewska
P40	**Synthesis, Structure and Catalytic Properties of the Ni/C, Cu/C, and Co/C Composites for Water Splitting Reaction** Mariia Galaburda, Evgeniya Kovalska, Volodymyr L. Karbivskyy, Olena I. Oranska, Zdenek Sofer, Viktor M. Bogatyrov
P43	**Combination of Computer Generated and Dot-matrix Holograms for Anti-counterfeiting Employing Femtosecond Laser Ablation** Tomas Klinavičius, Tomas Tamulevičius

ELECTRONIC AND OPTICAL MATERIALS

P46	**Volt-ampere Characteristics of SiC-pSi Junctions Produced with X-rays** Arvydas Juozapas Janavičius, Romualdas Purlys, Mindaugas Viliūnas, Ringaudas Rinkūnas
P49	**Optical Lattices via the Coupling of Internal Atomic States**

	Povilas Račkauskas, Gediminas Juzeliūnas
P52	**Optical and Structural Properties of ZnO Ceramics** Agnese Spustaka, Donāts Millers, Faina Muktepavela, Krišjānis Šmits, Piotr Rodnyi, Elena Gorokhova
P55	**Undoped and Ga-doped ZnO Nanostructure Synthesis** Mareks Seņko, Ivita Bite, Agnese Spustaka, Donats Millers, Krišjānis Šmits
P58	***meta*-Substituted Benzophenones as Multifunctional Electroactive Materials for OLEDs** Rasa Keruckiene, Jonas Keruckas, Eigirdas Skuodis, Dmytro Volyniuk, Pei-His Lee, Tien-Lung Chiu, Jiun-Haw Lee, Juozas V. Grazulevicius
P61	**Spectral Properties of Pseudobinary ZnMgO Systems** Rihards Ruska, Guna Krieke, Baiba Berzina, Laima Trinkler
P64	**Sol-gel Synthesis of Alkali-doped Glassy Silicon Dioxide** Madara Leimane, Ivita Bite, Linards Skuja, Krišjānis Šmits, Virgīnija Vītola
P67	**Dosimetric Properties of AlN-Y_2O_3 Ceramics** Janis Cipa, Laima Trinkler, Rihards Ruska, Baiba Berzina
P70	**Broadband Chirped Mirrors with Porous Top Layer for Reduced Group Delay Dispersion Oscillations** Simas Melnikas, Lukas Ramalis, Simonas Kičas, Tomas Tolenis
P73	**The Dependence of the Morphology of $GdPO_4$ on the Synthesis Conditions** Darius Budrevičius, Andrius Pakalniškis, Ramūnas Skaudžius
P76	**Subwavelength Optical Barriers for Ultracold Atoms** Edvinas Gvozdiovas, Povilas Račkauskas, Tomas Andrijauskas, Egidijus Anisimovas, Gediminas Juzeliūnas
P79	**Formation and Modelling of Diffraction Periodic Micro-Structures** Andrius Žutautas, Tomas Tamulevičius, Sigitas Tamulevičius

CERAMICS

P82	**Investigation of Structural Transitions in $Y_{(3-X)}Pr_XAl_5O_{12}$ ($0 \le X \le 3$) System** Andrius Pakalniskis, Kristina Kristinaityte, Arunas Marsalka, Vytautas Balevicius, Ramunas Skaudzius, Aivaras Kareiva
P85	**A Newly Proposed Aqueous sol-gel Synthesis for $Li_{0.35}La_{0.55}TiO_3$ Ceramic** Austėja Diktanaitė, Giedrė Gaidamavičienė, Edvardas Kazakevičius, Artūras Žalga
P88	**Investigation of Crystallization of Amorphous Calcium Phosphate Substituted with Smaller (Mg^{2+}, Zn^{2+}) and Larger (Sr^{2+}, Ba^{2+}) Divalent Ions** Lauryna Sinusaite, Aleksej Zarkov
P91	**Low-Temperature Synthesis of Calcium Deficient Hydroxyapatite Powder** Anastasija Afonina, Linora Ruškytė, Inga Grigoravičiūtė-Puronienė, Aivaras Kareiva

POLYMERS AND COMPOSITES

P94	**Manufacturing processes of Polymer Matrix Composites Using Various 3D Printing Technologies** Nabeel Maqsood, Marius Rimašauskas
P97	**Application of Monte Carlo Modelling for the Assessment of Various Gafchromic Films Feasibility to Record the Dose Distribution in Non-homogeneous Media** Aleksandras Ševčik, Diana Adlienė
P100	**Influence of Ester Diluents and Chain Extension on Polyurethane Viscosities** Dalia Bražinskienė, Sandra Mačiulytė, Paulina Nemaniutė, Tadas Matijošius, Svajus J. Asadauskas
P103	**Characterization of the Degradation of Elastomeric Gasket by Accelerated Ageing** Chloé Simet, Marie Moreau, Karine Mougin, Florence Baly-Le Gall, Arnaud Ponche, Vincent Roucoules
P106	**Thin Sheet C22E Steel FEA Analysis of Bending Stress after Laser Treatment** Oleksandr Kapustynskyi
P109	**A study of Osmosis Rate through Several Proton Conducting Polymer Composite Membranes** Reinis Kaparkalējs, Einārs Sprūģis, Guntars Vaivars
P112	**Tritium Absorption and Permeation Through Sulfonated poly(ether-ether ketone) (SPEEK) Membrane** Elina Pajuste, Guntars Vaivars, Liga Avotina, Andris Lescinskis, M. Halitovs, E. Sprugis, R. Kaparkalejs

ADVANCED ENGINEERING MATERIALS

P115	**Investigation of Thin Perovskite La:$BaSnO_3$ Films' Properties Using Different Substrates** Tomas Murauskas, Mantvydas Levulis, Virgaudas Kubilius, Valentina Plaušinaitienė
P118	**Influence of 3D Printed Polyamide Heels Design on the Mechanical Behaviour** Edita Gelažienė, Daiva Milašienė, Audronė Ragaišienė
P121	**Fabrication and Investigation of Bioactivity Nano-Composite Obtained form PVB-co-VA-co-VAc/HA** Marzieh Rabiei, Arvydas Palevicius, Giedrius Janušas
P124	**An Application of Polypyrrole for the Design of Electrochromic CO_2 Sensor** Raimonda Boguzaite, Vilma Ratautaite, Karolis Treinys, Ernestas Brazys, Almira Ramanaviciene, Arunas Ramanavicius

P127	**Synthesis and Investigation of Trifluoromethyl-substituted Aromatic Diamines for Optoelectronics** Ronit Sebastine Bernard, Viktorija Andruleviciene, Juozas Vidas Grazulevicius
P130	**Removal of Ammonium Ions on Spent Fluid Catalytic Cracking Catalyst** Agnė Mikelionienė, Danutė Vaičiukynienė, Algirdas Radzevičius, Jūratė Mockienė
P133	**Low-Temperature Synthesis of Vertically Aligned Graphene Nanosheets on Glass Substrate** Erika Rajackaitė, Rimantas Gudaitis, Domantas Peckus, Tomas Tamulevičius, Šarūnas Meškinis, Sigitas Tamulevičius

MATERIALS FOR ENERGY APPLICATIONS

P136	**Beryllium Oxidation in Air at Elevated Temperatures Depending on the Relative Humidity** Rūdolfs Jānis Zabolockis, Elīna Pajuste, Līga Avotiņa, Gunta Ķizāne
P139	**From fs to μs: Transient Analysis of Nonfullerene Organic Solar Cells** Rokas Jasiūnas, Huotian Zhang, Feng Gao, Vidmantas Gulbinas
P142	**Evaluation of Biofuel Ash Radioactivity** Alvydė Varatinskaitė, Linas Puodžiukynas, Benas Gabrielis Urbonavičius
P145	**Bi_2Se_3/CNT Heterostructures Synthesis for Li-ion Batteries** Vanda Voikiva, Raimonds Meija, Krisjanis Buks, Jana Andzane, Donats Erts
P148	**Innovative Anode Electrodes for Na-ion Batteries** Raimonds Meija, Krisjanis Buks, Jana Andzane, Donats Erts
P151	**The Evaluation of Gadolinia-doped Ceria Electrolyte for IT-SOFC Deposited by E-beam Evaporation Technique** Fariza Kalyk, Brigita Abakevičienė

Poster Session B 15:30 – 16:30

METHODS OF SURFACE ANALYSIS

P2	**Site-Directed anti-CD5 Antibody Immobilization Manner via Protein G for Enhanced Detection of the CD5 by SPR Immunosensor** Elena Dauksaite, Almira Ramanaviciene, Asta Kausaite-Minkstimiene
P5	**Characterization of TiO_2 and Al_2O_3 Functional Coatings on Metal Surface** Jeļena Sušinska, Ilze Manika, Līga Bikše, Krišjānis Šmits, Ēriks Vilunas
P8	**Investigation of Sculptured Thin Film Growth by Optical Monitoring** Gabija Petrauskaitė, Lina Grinevičiūtė, Lukas Ramalis, Tomas Tolenis

SURFACE ENGINEERING AND NANOSTRUCTURES

P11	**Effect of Laser Alloying on Surface Properties of Additively Manufactured Maraging Steel 300 Part** Kęstutis Bučelis, Jelena Škamat, Olegas Černašėjus
P14	**Electroless Plating of Continuous Platinum Layer** Ina Stankevičienė, Aldona Jagminienė, Loreta Tamašauskaitė-Tamašiūnaitė, Eugenijus Norkus
P17	**Bioanalytical Device Based on the Metallurgical Aluminum Surface** Tomas Sabirovas, Eimantas Zolubas, Aušra Valiūnienė
P20	**Analysis of Ultrafast Relaxation Processes of the Silver Nanoparticles in Colloid after Laser Modification** Gerda Klimaitė, Domantas Peckus, Mantas Mikalkevičius, Asta Tamulevičienė, Tomas Tamulevičius, Sigitas Tamulevičius
P23	**Precise Thickness Porous Anodic Aluminium Oxide for Optical Sensors** Karlis Lazdovskis, Raimonds Poplausks, Uldis Malinovskis, Donats Erts, Juris Prikulis
P26	**Growth of Aluminium Nanowires on Scratched Surface of Black Aluminium Films during Thermal Annealing** Marina Romanova, Stanislav Cichon, Yuri Dekhtyar, Premysl Fitl, Joris More-Chevalier, Michal Novotny, Lenka Volfová
P29	**Fabrication and Properties of Carbon Nanotube Scaffolds for Application in Flexible Thermoelectrics** Aleksandrs Dutovs, Krisjanis Buks, Jana Andzane, Donats Erts
P32	**Fabrication of Suspended Bi_2Se_3 Nanoribbon Structures for Characterization and Device Applications** Liga Jasulaneca, Matiss Martins Ramma, Raitis Sondors, Raimonds Meija, Edijs Kauranens, Donats Erts
P35	**Optical Sensor Based on Gold Nanoparticle Formation for Reducing Sugar Determination** Benediktas Brasiunas, Anton Popov, Arunas Ramanavicius, Almira Ramanaviciene
P38	**Surface Renewal of Aluminium Single-crystal Electrodes using Chemical Etching** Daniels Jevdokimovs, Raimonds Poplausks, Uldis Malinovskis, Donats Erts, Juris Prikulis
P41	**Substrate Surface Functionalized with Morphology and UV Radiation for *S. cerevisiae* Cell**

	Attachment Yuri Dekhtyar, Gaļina Hrustaļova, Aleksandrs Rapoports, Linda Rozenfelde, Krista Rozenberga, Lidija Saulīte, Hermanis Sorokins, Sabīne Teifurova

ELECTRONIC AND OPTICAL MATERIALS

P44	**On the Synthesis of Bismuth Iron Garnet** Aivaras Kareiva, Andrius Pakalniskis, Aldona Beganskiene, Ramunas Skaudzius, Zivile Stankeviciute, Inga Grigoraviciute-Puroniene, Aleksej Zarkov
P47	**Investigation of the Properties of D-A-D Architecture Materials Using Theoretical Tools** Viktorija Andruleviciene, Karolis Leitonas, Dmytro Volyniuk, Gjergji Sini, Juozas Vidas Grazulevicius, Vytautas Getautis
P50	**Spatially Dependent Spin-Orbit Coupling and an Artificial Magnetic Field for Ultracold Atoms** Povilas Račkauskas, Gediminas Juzeliūnas
P53	**Electro-optical Response of Infrared Light Emitting Sources** Simona Pūkienė, Algirdas Jasinskas, Virginijus Bukauskas, Vladimir Agafonov, Mindaugas Kamarauskas, Algimantas Lukša, Andrius Bičiūnas, Bronislovas Čechavičius, Arūnas Šetkus, Renata Butkutė
P56	**Highly Efficient Green Exciplex-based OLEDs Utilizing Bicarbazole Derivatives** Malek Mahmoudi, Jonas Keruckas, Dmytro Volyniuk, Jurate Simokaitiene, Juozas V. Gražulevičius
P59	**Direct Electrochemical Quantification of Cyanide Ion Concentration** Povilas Virbickas, Diana Baryseva, Aušra Valiūnienė
P62	**Energy Barriers Restrict Charge Carrier Motion in $MAPbI_3$ Perovskite Films** Rokas Gegevičius, Rokas Jasiūnas, Simonas Driukas, Marius Franckevičius, Vidmantas Gulbinas
P65	**Re-evaluation of Chromium Doped Alumina for Dosimetric Applications** Ernests Einbergs, Aleksejs Zolotarjovs, Krisjanis Smits, Ivita Bite, Laima Trinkler
P68	**White Electroluminescent Solution-processable Devices with New Iridium (III) Organic Complex** Jonas Keruckas, Manojkumar Dhanthala Thiyagarajan, Sathiyanarayanan Kulathu Iyer, Jurate Simokaitiene, Dmytro Volyniuk, Juozas Vidas Gražulevičius
P71	**Modified Structure Lutetium Oxyorthosilicate: Synthesis and Investigation of Luminescence Properties** Greta Inkrataitė, Ramūnas Skaudžius
P74	**Exploiting Exciplex-Based Emitters in Structure of White Light Emitting Diodes** Dmytro Volyniuk, Malek Mahmoudi, Galyna Sych, Matas Guzauskas, Xiaofeng Tan, Stepan Kutsiy, Khrystyna Ivaniuk, Igor Helzhynskyy, Pavlo Stakhira, Juozas V. Grazulevicius
P77	**White OLEDs Achieved from Exciplex Emission Management by a Spacer** Matas Gužauskas, Galyna Sych, Dmytro Volyniuk, Stepan Kutsiy, Pavlo Stakhira, Juozas Vidas Gražulevičius
P80	**Electron-rich Heterocyclic Compounds with Carbazole, Dibenzofuran or Dibenzothiophene Cores as Hole-transporting Materials for Optoelectronic Applications** Ranush Durgaryan, Yan Danyliv, Dmytro Volyniuk, Iryna Hladka, Juozas Vidas Grazulevicius

CERAMICS

P83	**Sol-gel Synthesis of Lanthanum Substituted YAG** Andrius Laurikenas, Arunas Marsalka, Vytautas Balevicius, Aivaras Kareiva
P86	**Synthesis and Characterization of $BiMnO_3$ Containing Solid Solutions** Dovydas Karoblis, Aleksej Žarkov, Aivaras Kareiva, Aldona Beganskienė, Lauryna Sinušaitė, Kęstutis Mažeika, Dalis Baltrūnas, Gediminas Niaura
P89	**Synthesis and Characterization of Dual Substituted beta Tricalcium Phosphate** Aleksej Zarkov, Lauryna Sinusaite, Agne Kizalaite, Diana Griesiute, Anton Popov, Andris Antuzevics, Kestutis Mazeika, Dalis Baltrunas, Aivaras Kareiva
P92	**Synthesis of Magnesium Whitlockite by Dissolution-Precipitation Process** Agne Kizalaite, Inga Grigoraviciute-Puroniene, Aivaras Kareiva, Aleksej Zarkov

POLYMERS AND COMPOSITES

P95	**Development of Flexible Silicone Composites for Radiation Protection** Laurynas Gilys, Egidijus Griškonis, Diana Adlienė
P98	**Effect of Process Parameters on the Electrospinning of PEBA** Zahid Sarwar, Dainius Martuzevičius
P101	**Enhancement of the Compatibility between Natural Rubber and Pineapple Leaf Microfibers for Better Stress Transfer in Their Composite** Karine Mougin, Budsaraporn Surajarusarn, Nuttapong Hariwongsanupab, Gautier Schrodj, Samar Garreau, Taweechai Amornsakchai
P104	**Thermoelectric Properties and Production of Flexible Polyvinyl Alcohol Based Thermoelectric**

	Nanocomposites Krisjanis Buks, Jana Andzane, Juris Bitenieks, Janis Zicans, Donats Erts
P107	**Mechanical Properties of Melt Spun Multifilaments Yarns from Modificated PLA Polymer** Evaldas Bolskis, Erika Adomavičiūtė, Egidijus Griškonis
P110	**Gamma Radiation Effects on Mechanical Properties of Natural Fabric Reinforced Polyester Composites** K.Z.M. Abdul Motaleb, Rimvydas Milašius
P113	**Hot Stamping Quality vs Adhesive Layer Structure and Hot Stamping Regimes** Singhal Shubham, Pranas Narmontas, Viktoras Grigaliūnas, Rimantas Gudaitis, Sigitas Tamulevičius, Eglė Fataraitė-Urbonienė

ADVANCED ENGINEERING MATERIALS

P116	**The Influence of Growth Rate and Substrates' Thermal Expansion Coefficient on Properties of Nanocrystalline La-Sr-Mn-Co-O Films** Milita Vagner, Vakaris Rudokas, Karolis Motiejuitis, Valentina Plaušinaitienė, Nerija Žurauskienė
P119	**Flammability Reduction of Jute Fabric Treated with Borax, Dai- Ammonium Phosphate and Thio-urea** Mohaiminul Quayum, Md. Reazuddin Repon
P122	**Investigation of Thermal Properties of Conductive Modified PCM Microcapsules and Knitted Material Containing Them** Virginija Skurkytė-Papievienė, Aušra Abraitienė, Audronė Sankauskaitė
P125	**Research of Methods to Improve Properties of Blended Fibres from Waste of Natural Fibres** Sharof Shukhratov, Gulnoz Yusupkhodjaeva, Rimvydas Milašius
P128	**Impact of Abrasion Resistance on Mass Loss of Bast Fibres Woven Fabrics** Indrė Tautkutė-Stankuvienė, Eglė Kumpikaitė
P131	**On the Synthesis and Characterization of Ag_3PO_4 Crystals of Various Morphologies** Jolanta Raudoniene, Ramunas Skaudzius, Zivile Stankeviciute, Rimantas Raudonis, Edita Garskaite, Aivaras Kareiva

MATERIALS FOR ENERGY APPLICATIONS

P134	**Photophysical Properties of Tin Sulphides Thin Films on the FTO Glass Slides** Asta Bronusiene, Karolis Leitonas, Ingrida Ancutiene
P137	**Production of Active Chlorine Species via Photoelectrochemical Solar Energy Conversion Using Sol-Gel Prepared Nanostructured WO_3 Photoanode** Maliha Parvin, Milda Petrulevičienė, Irena Savickaja, Benjaminas Šebeka, Arnas Naujokaitis, Vidas Pakštas, Jurga Juodkazytė
P140	**Corrosion Inhibition of Aluminum Current Collectors in Aqueous Na-ion Batteries** Davit Tediashvili, Linas Vilčiauskas
P143	**Electrical Impedance and Cyclic Voltammetry Measurements of Innovative Anode Electrode Materials for Li-ion Batteries** Vitālijs Lazarenko, Raimonds Meija, Juris Katkevičs, Krišjānis Buks, Jana Andžāne, Arturs Vīksna, Donāts Erts
P146	**Phase Change Material Integrated in to Indoor Two-layer Shive Hemp Wallboard** Edgars Kirilovs, Silvija Kukle, Hans-Jörg Gusovius, Inga Zotova
P149	**Impact of Air Humidity on the Oxidation of Tungsten for Fusion Applications** Toms E. Šusts, Elīna Pajuste, Līga Avotiņa, Aija Trimdale, Gunta Ķizāne, JET Contributors
P152	**Tritium Retention in Beryllium Plasma Facing Materials in JET with ITER-Like Wall** Anete Stine Teimane, Elina Pajuste, Liga Avotina, Gunta Kizane, JET contributors

Poster Session C 16:30 – 17:30

METHODS OF SURFACE ANALYSIS

P3	**Development of Peat Fibre Based Sustainable Textiles** Muhammad Usman Munir, Daiva Mikučionienė
P6	**Charge Trapping in Si/SiO_2 Substrate during E-beam Deposition of CaF_2:EuF_3 Nanofilms** Marina Romanova, Sergii Chertopalov, Yuri Dekhtyar, Ladislav Fekete, Jan Lancok, Michal Novotny, Aleksandr Vilken
P9	**Dependence of Electrical Properties of Bismuth Selenide Nanowires on Temperature and Magnetic Field** Edijs Kauranens, Līga Jasulaņeca, Raitis Sondors, Matīss Mārtiņš Ramma, Raimonds Meija, Kiryl Niherysh, Jana Andžāne, Donāts Erts

SURFACE ENGINEERING AND NANOSTRUCTURES

P12	**Efficient Laser Milling Technology for Bio-inspired Functional Surface Formation** Andrius Žemaitis, Mantas Gaidys, Paulius Gečys, Mindaugas Gedvilas
P15	**Substrate - Dependent Magnetotransport of Topological Insulator Nanoribbons** Gunta Kunakova, Thilo Bauch, Jana Andzane, Donats Erts, Floriana Lombardi
P18	**Influence of WO_3 Coating Morphology on Efficiency of Photoelectrochemical Hypochlorite Generation** Milda Petrulevičienė, Maliha Parvin, Irena Savickaja, Evelina Griniuk, Laura Michailova, Benjaminas Šebeka, Arnas Naujokaitis, Jurga Juodkazytė
P21	**Analysis of Topographical Parameters of MXene Films** Gerda Trifeldaite, Kristina Zukiene, Daiva Zeleniakiene
P24	**Deposition of Multilayer Optical Coatings on Corrugated Surfaces** Julianija Nikitina, Tomas Tolelis, Lina Grinevičiūtė
P27	**Effect of Bias Voltage and Doping on Diamond-like Carbon Films** Vilius Dovydaitis, Liutauras Marcinauskas, Paola Ayala
P30	**Raman Characterization of Quartz/Bi_2Se_3 and Graphene/Bi_2Se_3 heterostructures** Kiryl Niherysh, Jana Andzane, Mikhail Mikhalik, Sergey Prischepa, Ivan Komissarov, Donats Erts
P33	**Behaviour of Structural Defects after Thermal Annealing of Directly Synthesised Graphene on Si(100) Substrate** Šarūnas Jankauskas, Rimantas Gudaitis, Andrius Vasiliauskas, Šarūnas Meškinis
P36	**Investigation of Solid Wood Surface Processing with Woodworking Hand Tools and CNC** Ilze Gūtmane, Silvija Kukle, Inga Zotova, Artūrs Ķīsis
P39	**Microwave Regeneration of Metal-containing Carbon Sorbents** Mariia Galaburda, Viktor Bogatyrov, Dariusz Sternik, Olena Oranska, Anna Derylo-Marczewska
P42	**Synthesis and Investigation of Molecularly Imprinted Glyphosate in Polypyrrole Matrix by ESPR Method** Domas Balčiūnas, Deivis Plaušinaitis

ELECTRONIC AND OPTICAL MATERIALS

P45	**Infrared Spectrometry Application for Studies of Radiation Stability of Si_3N_4 Nanofilms** Liga Avotina, Elina Pajuste, Marina Romanova, Aleksandrs Zaslavskis, Yuri Dekhtyar, Gunta Kizane
P48	**Modelling of Absorption in Diamond-like Carbon:Silver Nanocomposite Films** Justas Deveikis, Aušrinė Jurkevičiūtė
P51	**Rydberg Atom Localization using CPT with Spatially Dependent Fields** Teodora Kirova, Ning Jia, Seyyed H. Asadpour, Jing Qian, Gediminas Juzeliūnas, Hamid R. Hamedi
P54	**Derivatives of Indolo[3,2-b]carbazole as Efective Organic Semiconductors** Jurate Simokaitiene, Egle Jatautiene, Dmytro Volyniuk, Juozas Vidas Grazulevicius
P57	**Prussian Blue Modified Electrodes for Urea Detection** Giedrė Medvikytė, Gabija Kavaliauskaitė, Povilas Virbickas, Aušra Valiūnienė
P60	**Luminescence of AlN:Mn Powders** Rihards Ruska, Baiba Berzina, Laima Trinkler
P63	**Black Silicon as an Effective Substrate for Surface-Enhanced Raman Spectroscopy of Organic Molecules and Living Cells** Lena Golubewa, Renata Karpicz, Ieva Matulaitienė, Polina Kuzhir
P66	**Anisotropic Thin Films Based Polarizing Coatings for High Power Lasers** Lukas Ramalis, Lina Grinevičiūtė, Rytis Buzelis, Tomas Tolenis
P69	**Vibrational Structure of the Carbon Dimer in Hexagonal Boron Nitride: Theoretical Study** Vytautas Žalandauskas, Audrius Alkauskas
P72	**Photophysical Properties of Thiophene-Substituted BODIPY Molecular Rotors** Karolina Maleckaitė, Jelena Dodonova, Sigitas Tumkevičius, Aurimas Vyšniauskas
P75	**Synthesis and Characterisation of Al-Al_2O_3-ZnO Multilayers for Optical Sensors** Aleksandrs Dutovs, Uldis Malinovskis, Juris Prikulis, Daniels Jevdokimovs, Raimonds Poplausks, Octavio Graniel, Michael Bechelany, Donats Erts
P78	**Isomeric Quinoline and 9-phenylcarbazole Derivatives as Versatile Exciplex-forming Materials for WOLEDs** Oleksandr Bezvikonnyi, Galyna Sych, Dmytro Volyniuk, Roman Lytvyn, Juozas V. Grazulevicius
P81	**Facile Structure-modification of Xanthenone and Thioxanthenone Based OLED Emitters Exhibiting Both Aggregation Induced Emission Enhancement and Thermally Activated Delayed Fluorescence** Sohrab Nasiri, Simas Macionis, Dalius Gudeika, Dmytro Volyniuk, Juozas V. Grazulevicius

CERAMICS

P84	**Characterization of $M_{0.05}Eu_{0.05}Ca_{0.09}MoO_4$ Ceramics Synthesized by an Aqueous sol-gel Method**

	Giedrė Gaidamavičienė, Artūras Žalga
P87	**Cobalt Doped Lead Ferrite Synthesis by Reactive Magnetron Sputtering and Investigation of Ferroelectric and Structural Properties** Benas Beklešovas, Vytautas Stankus
P90	**Preparation of Yttrium Iron Garnet, Yttrium Iron Perovskite and Terbium Iron Perovskite Thin Films on Silicon Substrate** Justinas Januskevicius, Rimantas Raudonis, Zivile Stankeviciute, Aivaras Kareiva
P93	**Investigation of the Reconstruction of Sol–Gel Derived $Mg_{2-x}M_x/Al_1$ (M = Ca, Sr, Ba) Layered Double Hydroxides** Ligita Valeikiene, Marina Roshchina, Inga Grigoraviciute-Puroniene, Vladimir Prozorovich, Aleksej Zarkov, Andrei Ivanets, Aivaras Kareiva

POLYMERS AND COMPOSITES

P96	**Development of Bone Equivalent 3D Printing Materials** Antonio Jreije, Diana Adlienė
P99	**Mathematical Modelling of Knitted Structures and Evaluation of Their Properties** Edgaras Arbataitis, Daiva Mikučionienė
P102	**Development of Sensors and Actuators by 4D Printing** Bauerlin Quentin, Karine Mougin, Arnaud Spangenberg
P105	**Effect of Plasma Treatment on Resistance Performance of PEDOT-PSS Coated Shielding Textile** Julija Petkevičiūtė, Vitalija Rubežienė, Audronė Sankauskaitė, Julija Baltušnikaitė-Guzaitienė, Aušra Abraitienė, Diana Kubilienė
P108	**Obtaining and Properties of Zirconium Phthalocyanine Modified Reduced Graphite Oxide Composite in Different Media** Yuriy Gerasymchuk, Anna Wędzyńska, Robert Tomala, Leili Tahershamsi, Viktor Chernii, Anna Łukowiak
P111	**Proton Conducting Polyetheretherketone/ Nanodispersed Zirconium Phosphate Composite Membranes** Samanta Homiča, Linda Briede, Einārs Sprūģis, Guntars Vaivars

ADVANCED ENGINEERING MATERIALS

P114	**Thermoregulation Properties of Different Structures of Socks Containing Fibres with Functional Additives** Laimutė Stygienė, Sigitas Krauledas, Aušra Abraitienė, Sandra Varnaitė-Žuravliova, Virginija Skurkytė-Papievienė, Audronė Sankauskaitė, Virginijus Mažeika
P117	**Influence of Growth Rate on Magnetoresistive Properties of Nanostructured La-Sr-Mn-Co-O Films** Vakaris Rudokas, Milita Vagner, Karolis Motiejuitis, Valentina Plaušinaitienė, Nerija Žurauskienė
P120	**Electroless Deposition of CoBZn Coatings** Jūratė Vaičiūnienė, Zita Sukackienė, Loreta Tamašauskaitė Tamašiūnaitė, Eugenijus Norkus
P123	**Influence of Binder on the Properties of Granules** Austėja Mikolaitienė, Rasa Šlinkšienė
P126	**Investigation of Abrasion Resistance of 3D Weft-Knitted Protective Fabrics** Julija Krauledaitė, Kristina Ancutienė, Sigitas Krauledas, Virginijus Urbelis
P129	**Virtual Reality Adapter with Tuneable Liquid Lens Eyepieces for Orthooptic Accommodation Training** Lauris Barons, Maris Ozolinsh, Varis Karitans
P132	**In-situ Synthesis of $GdPO_4$:Eu by Hydrothermal Method in Wood and Preliminary Study of Properties** Ramūnas Skaudžius, Monika Baublytė, Edita Garškaitė

MATERIALS FOR ENERGY APPLICATIONS

P135	**Solvothermal Synthesis of NASICON-type $NaTi_2(PO_4)_3$ for Aqueous Na-ion Batteries** Gintarė Plečkaitytė, Jurgis Pilipavičius, Milda Petrulevičienė, Jurga Juodkazytė, Linas Vilčiauskas
P138	**Preparation and Characterization of Electro-Conductive Heating Fabrics** Md. Reazuddin Repon, Daiva Mikučionienė, Ilze Baltina, Juris Blūms
P141	**Influence of Carbon Content on Charge Storage Performance of NASICON Type $NaTi_2(PO_4)_3$ in Aqueous Media** Jurga Juodkazytė, Skirmantė Tutlienė, Milda Petrulevičienė, Linas Vilčiauskas
P144	**UV-Vis Ivvestigation of Cobalt Sulfide Layers on Polyamide 6 Formed using Different Ways of Preparing Polyamide** Klaudija Vaičiukynaitė, Miglė Liudžiūtė, Rūta Stokienė, Skirma Žalenkienė
P147	**Analysis of One-layer Hemp Shive and Wood Chips Insulation Wallboards** Inga Zotova, Silvija Kukle, Edgars Kirilovs, Ilze Gūtmane
P150	**Microbial Biofuel Cell for Production of Renewable Energy** Juste Rozene, Ingrida Bruzaite, Kasia Blazevic, Inga Morkvenaite-Vilkonciene, Arunas Ramanavicius

P153	**Influence of Technological Parameters on Crystal Phase Stability of Ceramic Thin Films** Nursultan Kainbayev, Mantas Sriubas, Kristina Bockute, Darius Virbukas, Giedrius Laukaitis