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| Session P1 | <b>Mangirdas Malinauskas</b> | Laser 3D Mesoscale Printing: From Renewable Organics to Crystalline Inorganics  |
| Session S1 | <b>Sigitas Tamulevičius</b>  | 2D Nanoparticle Based Nanostructures – Technology and Applications  |
|            | S1-1 Daniel Vieira           | Continuous corrosion protection via layered double hydroxide UV-degradation   |
|            | S1-2 Ivan Venetsev           | Influence of In and Ga dopants on structural and scintillating properties of ZnO nanopowders and optical ceramics   |
|            | S1-3 Andrejs Cesnokovs       | Role of interstitial oxygens in Ir-doped ZnO  |
|            | S1-4 Baiba Berzina           | Persistent luminescence properties of doped AlN   |
|            | S1-5 Kęstutis Staliunas      | Fano Resonances in Nanostructured Thin Films  |
|            | S1-6 Lina Grineviciute       | Deposition of multilayer optical coatings on corrugated surfaces for 2D photonic crystals formation   |
| Session S2 | <b>Laima Trinkler</b>        | Luminescence of LiGaO <sub>2</sub> crystal – mechanisms and potential application   |
|            | S2-1 Ekaterina Vagapova      | Site-selective laser spectroscopy of Nd <sup>3+</sup> doped b modification of calcium triphosphate  |
|            | S2-2 Juhan Saaring           | Ultrafast Cross-Luminescence in BaGeF <sub>6</sub> and K <sub>2</sub> GeF <sub>6</sub>  |
|            | S2-3 Vitali Nagirnyi         | Up-conversion luminescence in Yb doped Li <sub>6</sub> Y(BO <sub>3</sub> ) <sub>3</sub> single crystals   |
|            | S2-4 Ramūnas Nedzinskas      | Structural analysis and photoluminescence spectroscopy of rock-salt ZnMgO thin films with high ZnO content  |
|            | S2-5 Ott Rebane              | Photonic solutions for monitoring of pathogen decontamination efficiency  |
| Session P2 | <b>Gerd Buntkowsky</b>       | Solid-State-NMR Characterization of functional Materials  |
| Session S3 | <b>Aldona Balčiūnaitė</b>    | Formation and investigation of different catalysts for alkaline fuel cells  |
|            | S3-1 Alexander Vetcher       | Metal powder materials with nanomodified oxide coatings and their technical application   |
|            | S3-2 Konstantin Glukhov      | Magnetic ordering in multilayered compounds of M <sub>1</sub> M <sub>2</sub> P <sub>2</sub> X <sub>6</sub> (M <sub>1</sub> , M <sub>2</sub> – Mn, Fe, Cr, Cu; X – S, Se) type |
|            | S3-3 Marco Kirm              | Challenges in the development of Commercial Analytical Research Organisations in the Baltic Sea region  |
| Session S4 | <b>Robert Evarestov</b>      | First-principles study of pressure-induced insulator-to-metal transition in 2D layered compound FePS <sub>3</sub>   |
|            | S4-1 Roberts Eglitis         | Ab initio calculations of ReO <sub>3</sub> (001) as well as ABO <sub>3</sub> perovskite (001), (011) and (111) nano-surfaces, interfaces and defects therein                  |
|            | S4-2 Yuri Mastrikov          | Modelling of oxygen reduction reaction at solid oxide fuel cell cathode   |
|            | S4-3 Amirullah M.Mamedov     | Slater Insulator Phase of A <sub>2</sub> (A=Li, Na)IrO <sub>3</sub> : first principal calculations  |
| Session S5 | <b>Qin Wang</b>              | Graphene based nanostructures and nanoparticles for sensing applications  |
|            | S5-1 Andris Šutka            | Revealing polymer contact electrification mechanisms and designing triboelectric nanogenerators   |
|            | S5-2 Anatoly Kravtsov        | Reduction of impurity sources in Si crystal growth system with electron gun beam heating  |
|            | S5-3 Tsung-Ming Tsai         | Characterization of ZnMgO Based Solar-blind Photodetector with Supercritical Fluid Treatment  |
| Session S6 | <b>Karol Frohlich</b>        | Preparation and performance of photoanode with thin RuO <sub>2</sub> - and IrO <sub>2</sub> -RuO <sub>2</sub> -based oxide electrocatalysts for water splitting               |
|            | S6-1 Vidmantas Gulbinas      | Organic solar cells: from light absorption to electric power  |
|            | S6-2 Linas Vilčiauskas       | Towards the Understanding of NASICON Structured Systems for the Na-ion Energy Storage   |
|            | S6-3 Simona Pūkienė          | Electro-optical characteristics of NIR light emitting sources   |

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| Session S7  | <b>Gunnar Nurk</b>          | Operando NAP-HT-XPS and impedance spectroscopy study of pulsed laser deposited Ni-CeO <sub>2</sub> solid oxide fuel cell electrode   |
|             | <b>Maxim Ananyev</b>        | Surface defect chemistry and ionic transport in oxides with perovskite related structure   |
|             | S7-1 Anatoli I. Popov       | Radiation-Induced Point Defects and Processes in Ionic Oxides – where we are standing now and what we understand better  |
| Session S8  | <b>Gintautas Tamulaitis</b> | Response time as the key functional property of future scintillation materials   |
|             | S8-1 Tigran Akopdzhanyan    | Synthesis of AlON powders and ceramics and their optical and luminescent properties  |
|             | S8-2 Kęstutis Arlauskas     | Synthesis and Photophysical Features of Several (2,4-dinitrophenyl)hydrazones from Various Alicyclic Mono- and Diketones   |
| Session P3  | <b>Mattias Hammar</b>       | Nanostructured semiconductor optoelectronics   |
| Session S9  | <b>Anders Hallen</b>        | Silicon Carbide Material Development for Semiconductor Power Devices   |
|             | S9-1 Patrik Scajev          | Extension of Spectral Sensitivity of GeSn IR Photodiode after Laser Annealing  |
|             | S9-2 Nikita Derets          | Thermomechanical response of main-chain liquid crystal elastomers with different degrees of crosslinking   |
|             | S9-3 Tatjana Dedova         | Enhanced Photocatalytic Activity of ZnO Nanorods by Surface Treatment with H <sub>2</sub> AuCl <sub>4</sub> : Synergic Effects Through an Electron Scavenging, Plasmon Resonance and Surface Hydroxylation |
| Session S10 | <b>Andrei Salak</b>         | Field-assisted formed nanostructures of multifunctional 2-D anion exchangers   |
|             | S10-1 Ekaterina Politova    | Structure, ferroelectric and local piezoelectric properties of lead-free KNN- based perovskite ceramics  |
|             | S10-2 João Cardoso          | Phase transitions in the BiFe <sub>1-x</sub> Cr <sub>x</sub> O <sub>3</sub> multiferroics  |
|             | S10-3 Yulian Vysochanskii   | Ferroelectricity induced by germanium dopants in quantum paraelectrics in Pb <sub>2</sub> P <sub>2</sub> (S,Se) <sub>6</sub>   |
| Session S11 | <b>Aleksandr Lushchik</b>   | Accumulation and annealing of structural defects in wide-gap metal oxides under intense radiation of different types   |
|             | S11-1 Vytautas Klimavičius  | DNP enhanced solid-state NMR and its application to investigate novel catalyst   |
|             | S11-2 Evgenij Artsiukh      | Estimation of the degree of antisite disordering of magnetoactive ions in Sr <sub>2</sub> FeMoO <sub>6-δ</sub> by means of the intensity of the X-ray peak (101)   |
| Session S12 | <b>Jiri Kulda</b>           | What is hidden in the background of Bragg diffraction. Diffuse scattering and PDF analysis not only with neutrons  |
|             | S12-1 Jan Dec               | 100 years with ferroelectricity  |
|             | S12-2 Vladimir Shur         | Growth of dendrite domains and superfast domain shape transformation in ferroelectrics   |
|             | S12-3 Roman Burkovsky       | Triggered incommensurate transitions   |