

**Scientific Programme of the
11th international conference Solid State
Surfaces and Interfaces, SSSI XI,
November 23 - 26, 2020, Slovakia**



Monday, 23 November 2020			
9:00 – 9:10	Emil Pinčík	OPENING	Institute of Physics SAS, Bratislava, Slovakia
9:10 – 9:50	IL1 Štefan Chromik	The properties of MOS2 two dimensional system prepared by PLD and ex-situ methods on different substrates	Institute of Electrical Engineering SAS, Bratislava, Slovakia
9:50 – 10:30	IL2 Mykhaylo Haysak presented by Miroslav Nagy	Dependence of Binding Energies for the Basic and Excited Ionic States of Protonium Molecules (Ps Pn) and (Pn2) on the Dimension of the Basis in One-Dimensional Space	Institute of Electron Pysics NAS of Ukraine, Uzhgorod, Ukraine
10:30 – 10:50	Coffee and tea break		
10:50 – 11:30	IL3 Martin Kopani	Structure and photoluminescence of n-type porous silicon	Institute of Medical Physics, Biophysics, Informatics and Telemedicine MF CU, Slovakia
11:30 – 12:10	IL4 Erik Piatti	Control of bulk superconductivity via surface-bound electric fields in ion-gated niobium nitride thin films	Department of Applied Science and Technology, Politecnico di Torino, Italy
12:10– 13:10	Lunch		
13:10 – 13:50	IL5 Dietrich R.T. Zahn	Van der Waals Heterostructures Investigated by Tip-enhanced Optical Spectroscopy	Technische Universität Chemnitz, Chemnitz, Germany
13:50 – 14:15	I Stanislav Cichoň	Investigation of Bi2Te3 doping with elements from VIII B column of Periodic Table	Institute of Physics of the Czech Academy of Sciences, Czech Republic
	Poster session		
14:15 – 14:30	Juraj Priesol	Characterization of In-rich InAlN layers by panchromatic and spectrally resolved cathodoluminescence	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
14:30 – 14:45	Hryhorii Makarov	Photoelectrical and gas sensing properties of Mo alloyed TiO2 nanotube arrays grown by anodization of DC magnetron sputtered films	Department of Experimental Physics, Faculty of Mathematics, Physics and Informatics, Comenius University, Slovakia
14:45 – 15:00	Bohumír Zaťko	Pulse height defect in 4H-SiC Schottky barrier detectors for detection of heavy ions	Institute of Electrical Engineering, SAS, Slovakia
15:00 – 15:15	Veronika Trembošová	Role of hydrated native oxide on the interface of Mg powders after compaction	Institute of Materials and Machine Mechanics SAS, Bratislava, Slovakia
15:15 – 15:30	Alexander Šatka	Investigation of semi-vertical GaN FET structures using EBIC method	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
15:30 – 15:45	Emil Pinčík	Photoluminescence of High Doped Multicrystalline Porous Si	Institute of Physics SAS, Bratislava, Slovakia
15:45 – 16:00	Arpad Kosa	DLTS Study of Electrically Active Defects in InAlGaN/GaN HEMT Structures for 5G	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia

Tuesday, 24 November 2020			
9:00 – 9:40	IL6 Grzegorz Jung	Proximity effect mediated by an organic molecular interface	Ben Gurion University of the Negev, Beer-Sheva, Israel
9:40 – 10:20	IL7 Peter Švec	Rare-earth free nanocrystalline magnetics from rapidly quenched precursors	Institute of Physics SAS, Bratislava, Slovakia
10:20 – 10:40	Coffee and tea break		
10:40– 11:20	IL8 Stanislav Jurečka	Depositon and characterization of copper oxides for photocatalytic water splitting	Institute of Aurel Stodola, University of Žilina, Slovakia
11:20 – 12:00	IL9 Pierre Ruterana	Strain relaxation in semiconductor heteroepitaxial layers	Centre de Recherche sur les Ions, les Matériaux et la Photonique, Caen, France
12:00 – 13:00	Lunch		
13:00 – 13:40	IL10 Viktor Johánek	Tailoring reducible oxides towards reduction of noble metal use in catalysis	Charles University, Prague, Czech Republic
13:40 – 14:05	2 Aleš Chvála	Evaluation and Characterisation of Current Transport Properties of SiC Schottky Diodes	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
14:05 – 14:30	3 Sobin Mathew	Nanoscale surface morphology modulation of graphene – i-SiC heterostructures	FG Nanotechnologie, TU Ilmenau, Germany
14:30 – 14:55	4 Ján Lančok	Investigation of surface structure of single-crystalline Cu ₂ O films for chemical sensors application	Institute of Physics of the Czech Academy of Sciences, Czech Republic
14:55 – 15:20	5 Emil Pinčík	Comparison of Photoluminescence of Catalytic Black Silicon and Standard Electrochemical Porous Silicon	Institute of Physics SAS, Bratislava, Slovakia
	Poster session		
15:20 – 15:35	Miroslav Mikolášek	Silicon based water splitting IMIS photoanode with thin TiO ₂ protection layers: transport mechanism	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
15:35 – 15:50	Róbert Brunner	Investigation of surface region of pin solar cell structure deposited on glass using FTIR reflectance spectroscopy	Institute of Physics SAS, Bratislava, Slovakia
15:50 – 16:05	Andrea Šagátová	Alfa spectrometry by radiation degraded semi-insulating GaAs detectors	Institute of Nuclear and Physical Engineering, Slovak University of Technology, Slovakia
16:05 – 16:20	Juraj Marek	DLTS Study of Electrically Active Defects in semi-vertical GaN-on-Si FETs	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia

Wednesday, 25 November 2020			
9:00 – 9:40	IL11 Aarne Kasikov	Calculating the absorption edge of thin films	Institute of Physics, University of Tartu, Tartu, Estonia
9:40 – 10:20	IL12 Bert Stegemann	Laser-induced control of the extent of PbI ₂ formation for improved interconnection of perovskite solar cells	HTW Berlin, University of Applied Sciences, Germany
10:20 – 10:40	Coffee and tea break		
10:40 – 11:20	IL13 Ľubica Stuchlíková	Study of emission and capture processes in advanced structures based on GaN	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
11:20 – 12:00	IL14 Thomas Chassé	Organic Films on Oxide Substrates – Interactions at Interfaces of Transition Metal Phthalocyanine Films with Metal Oxide Surfaces	Universität Tübingen, Germany
12:00 – 13:00	Lunch		
13:00 – 13:40	6 Sebastian Thiele	Electric bias-induced edge degradation of few-layer MoS ₂ devices	Nanotechnologie, Institut für Mikro- und Nanotechnologie, TU Ilmenau, Germany
	Poster session		
13:40 – 13:45	Martina Petráková	Polymeric coating influence on the biocompatibility and degradation of iron based biomaterials	Faculty of Science, University of Pavol Jozef Šafárik in Košice, Slovakia
13:45 – 13:50	Ivana Šišoláková	Comprehensive Study of Mechanical and Corrosion Properties of Biodegradable Zinc-Iron Alloys as an Implant material	Faculty of Science, University of Pavol Jozef Šafárik in Košice, Slovakia
13:50 – 13:55	Jana Shepa	Corrosion performance of iron and zinc powders under different compression conditions	Faculty of Science, University of Pavol Jozef Šafárik in Košice, Slovakia
13:55 – 14:00	Radka Gorejová	Surface modification of iron-based cellular materials by application of polymer coating	Faculty of Science, University of Pavol Jozef Šafárik in Košice, Slovakia
14:00 – 14:15	Filip Chymo	Tuning of the MIS photovoltage by ultrathin Pt layer for water splitting applications	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
14:15 – 14:30	Juraj Marek	Electrical and DLTS Characterization of Gate Interfaces in GaN-based Trench-gate semi-vertical MOS devices	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
14:30 – 14:45	Jakub Drobný	Electrically active defects in SiC Schottky Diodes	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
14:45 – 15:00	Hadj Yahia SEBA	Electron Transport and Hole Transport Layer-Free p/n Structure Perovskite Solar Cells	University of Ghardaia, Algeria
15:00 – 15:15	Lenka Volfová	Effect of oxygen pressure on optical and electrical properties of single-crystalline Cu ₂ O fabricated by pulsed laser deposition	Institute of Physics of the Czech Academy of Sciences, Czech Republic
15:15 – 15:30	Emil Pinčík	Red Shift of The Photoluminescence Signal of Porous P-Type c-Si	Institute of Physics SAS, Bratislava, Slovakia

