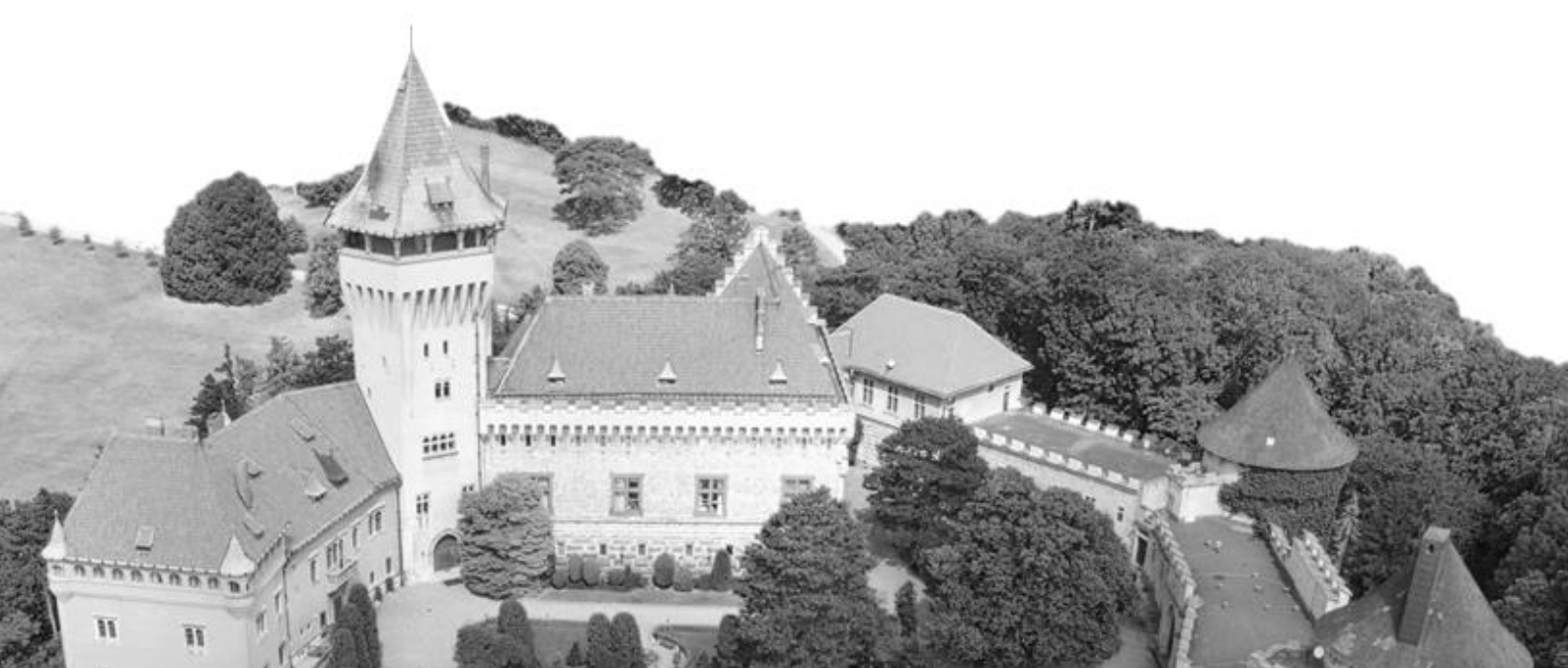




14th International conference Solid State Surfaces and Interfaces

Scientific Programme of the SSSI 2024



Monday, 18 November 2024			
9:00 – 10:30	Registration of participants (it will continue during whole day)		
10:30 – 10:40	Opening		
Moderator:	<i>Mgr. art. Maria Pincikova, Bratislava, Slovakia</i>		
10:40 – 11:20	IL1 Prof. Marco Fanciulli	Ultrathin and novel silicon-on-insulator thin layers for classical and quantum computing.	University of Milano Bicocca, Department of Materials Science, Italy
11:20 – 12:00	IL2 Assoc.Prof. Miroslav Mikolášek	How can we estimate the Li-Ion battery's internal temperature, and what can we get from such a parameter?	Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Slovakia
12:00 – 13:30	Lunch		
13:30 – 14:10	IL3 Prof. Dietrich R.T.Zahn	A Raman study of twisted bilayers of two-dimensional transition metal dichalcogenide semiconductors.	Chemnitz University of Technology, Chemnitz, Germany
14:10 – 14:35	1 Assoc.Prof. Marián Palcut	The effect of Cu concentration on the surface oxidation of AlFeCoNiCux high entropy alloys	Faculty of Materials Science and Technology in Trnava, Slovak University of Technology in Bratislava, Slovakia
14:35 – 15:00	2 Dr. Kamil Tokár	DFT modelling of electronic structure in hybrid perovskites with defects towards films	Advanced Technologies Research Institute, Faculty of Materials Science and Technology in Trnava, Slovak University of Technology in Bratislava, Slovakia
15:00 – 15:20	Coffee Break		
Moderator:	<i>Mgr. art. Maria Pincikova, Bratislava, Slovakia</i>		
15:20 – 15:45	3 Dr. Chakavak Esmaceli	Efficacy of oxidized and hydrogenated HPHT nanodiamond coatings in electrochemical immunosensors of cortisol	Faculty of Electrical Engineering, Czech Technical University in Prague, Prague, Czechia
15:45 – 16:25	4 Dr. Emil Pinčík	About Black Silicon and Porous Silicon and Solar Cell Applications	Institute of Physics SAS, Bratislava, Slovakia
16:25 – 16:50	5 PhD. Student Kristine O'Dwyer	Modulation of Surface Properties in Engineered PVDF-TrFE and BaTiO3 Nanocomposite Films for Advanced Solid-State Devices	University of Limerick, Ireland
18:00 – 20:00	Welcome Party with live folk musical group		

Tuesday, 19 November 2024			
8:00 – 9:30	Breakfast		
Moderator:	<i>Mgr. art. Maria Pincikova, Bratislava, Slovakia</i>		
9:30 – 10:10	IL4 Prof. Grzegorz Jung	Soft irradiation of high-Tc films surfaces for creation of easy vortex motion channels.	Ben Gurion University, Israel
10:10 – 10:30	Coffee break		
10:30 – 11:10	IL5 Assistant. Prof. Ehtsham-Ul Haq	Quantitative Surface Free Energy (SFE) Measurements at Multiple Length Scales	Department of Physics, University of Limerick, Ireland
11:10 – 11:50	IL6 Dr. Štefan Chromik	Certain challenges in the preparation and characterization of 2D MoS ₂ films on wide bandgap semiconductor substrates.	Institute of Electrical Engineering SAS, Bratislava, Slovakia
11:50 – 13:30	Lunch		
Moderator:	<i>Mgr. art. Maria Pincikova, Bratislava, Slovakia</i>		
13:30 – 13:55	6 Dr. Ľubomír Vančo	Analysis of two-dimensional molybdenum disulfide layers by scanning Auger microscopy	Centre for Nanodiagnostics of Materials, Slovak University of Technology, Faculty of Materials Science and Technology in Trnava, Slovakia
13:55 – 14:20	7 Dr. Emil Pinčík	Porous silicon, corresponding solar cells and CN-based passivation of defect states	Institute of Physics SAS, Bratislava, Slovakia
14:30 – 16:30	Coffee break + Poster session		
17:30 – 22:00	Visit of Ballet in Slovak National Theatre, Bratislava: Bolero+		
18:00 – 19:00	Dinner		

POSTER SESSION			
1	PhD. Student Michal Bennár	Formation of a polylactic acid monolayer on gold for potential applications in spintronics	Institute of Electrical Engineering SAS, Bratislava, Slovakia
2	Dr. Peter Ondrejka	Enhanced supercapacitor performance of hydrothermally synthesized MoS ₂ -based electrodes through substrate activation	Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Slovakia
3	Dr. Ihor Shpetnyy	Highly sensitive hydrogen gas sensor based on a capacitor-like Pt/TiO ₂ /Pt structure with large-scale nanoporous top electrode	Centre for Nanotechnology and Advanced Materials, Faculty of Mathematics, Physics and Informatics, Comenius University Bratislava, Slovakia
4	Dr. Magdaléna Poláčková	Characterization of conducting nanofilament in TiO ₂ memristor by electrical transport measurements and Andreev reflection spectroscopy	Centre for Nanotechnology and Advanced Materials, Faculty of Mathematics, Physics and Informatics, Comenius University Bratislava, Slovakia
5	Dr. Ivan Kostič	The study of the negative resist profile in electron beam lithography	Institute of Informatics, Slovak Academy of Science, Slovakia
6	PhD. Student Oleksandra Zima	Development of nickel hydroxide electrodes with tungsten sulfide coating for improved capacitance and stability in supercapacitors	Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Slovakia
7	Dr. Roman Stoklas	Vertical GaN MOS transistor with semi-insulating channel	Institute of Electrical Engineering SAS, Bratislava, Slovakia
8	PhD. Student Michal Pifko	Hierarchically Structured Boron-Doped Diamond for Photoelectrochemical Performance Enhancement of BDD/TiO ₂ Heterostructure	Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Slovakia
9	PhD. Student Zuzana Košelová	Optimization of Tungsten Anodization for Thin WO ₃ Layers for Application in Cold Emission Cathodes	Institute of Scientific Instruments of the Czech Academy of Sciences, Brno, Czech Republic
10	Dr. Oleh Turutanov	Josephson properties of a long bridge made of normal-superconducting bi-layer thin film	Comenius University, Faculty of Mathematics, Physics and Informatics, Department of Experimental Physics, Slovakia
11	Dr. Jaroslava Škriniarová	Influence of Ground Quality on Contact Fatigue of Locomotive Wheel Surfaces	Department of Sensoric Information Systems and Technologies, Institute of Informatics, Slovak Academy of Sciences, Slovakia
12	Dr. Marcel Talacko	Magnetic properties of YBCO thin film structure irradiated by low energy electron beam	Institute of Electrical Engineering, Slovak Academy of Sciences, Slovakia
13	Dr. Róbert Brunner	About the fitting procedure of the optical reflectance spectra of the silicon thin film structures	Institute of Physics SAS, Bratislava, Slovakia

Wednesday, 20 November 2024			
8:00 – 9:30	Breakfast		
Moderator:	<i>Mgr. art. Maria Pincikova, Bratislava, Slovakia</i>		
9:30 – 10:10	IL7 Dr. Roberta Satariano	Magnetic Josephson Junctions: from fundamental physics to superconducting quantum architectures	University of Naples Federico II, Naples, Italy
10:10 – 10:30	Coffee break		
10:30 – 10:55	8 Dr. Jozef Dobrovodský	Actual thin-film depth profiling of all elements in the ion beam laboratory in Trnava	Faculty of Materials Science and Technology in Trnava, Slovak University of Technology in Bratislava, Slovakia
10:55 – 11:20	9 Dr. Emil Pinčík	About the photoluminescence properties of the standard porous silicon structures	Institute of Physics SAS, Bratislava, Slovakia
11:20 – 11:40	Conclusion – results of competition of works of young researchers		
11:40 – 13:00	Lunch		
13:00 – 15:00	Trip – Hlohovec Castle		

This is the enclosure No.1 to the Extended Abstracts Book of the conference 14th SSSI,
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