

**Scientific Programme  
of the 7th international conference  
Progress in Applied Surface, Interface, and  
Thin Film Science -  
Solar Renewable Energy News VII  
(SURFINT-SREN VII).  
November 22 – 24, 2021**



<b>Monday, 22 November 2021</b>			
9:00 – 9:10	Emil Pinčík	OPENING	Institute of Physics SAS, Bratislava, Slovakia
9:10 – 9:50	<b>IL1</b> Dietrich R.T. Zahn	Tip-enhanced spectroscopies for studying 2-dimensional semiconductors and their interfaces	Technische Universität Chemnitz, Chemnitz, Germany
9:50 – 10:30	<b>IL2</b> Marco Fanciulli	Electrochemical characterization of the electrolyte/metal interface in microelectrodes for neuron stimulation and recording	Department of Materials Science, University of Milano - Bicocca, Milano, Italy
10:30 – 11:10	<b>IL3</b> Jiří Vohánka	Characterization of randomly rough surfaces by the combined method of spectroscopic ellipsometry, spectroscopic reflectometry and angle-resolved scattering of light	Faculty of Science, Masaryk University, Brno, Czech Republic
11:10 – 11:50	<b>IL4</b> Yossi Paltiel	About chiral spintronics	Hebrew University of Jerusalem, Israel
<b>11:50 – 13:00</b>	<b>Lunch</b>		
13:00 – 13:40	<b>IL5</b> Vitaly L. Alperovich	Interaction of vicinal and dislocation-induced atomic steps on crystal surfaces	Institute of Semiconductor Physics, Novosibirsk, Russia
13:40 – 14:05	<b>1</b> Dušan Pudiš	Near-field probes based on nanocones and nanopyrramids	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia
14:05 – 14:30	<b>2</b> Juraj Priesol	Investigation of EBIC line profiles at the p-n junction by numerical simulations using Monte Carlo method	Institute of Electronics and Photonics, Slovak University of Technology in Bratislava, Slovakia
	<b>Poster session</b>		
14:30 – 14:45	Roman Stoklas	Temperature dependence of Hall-effect mobility of thin InN layers grown by MOCVD on InAlN buffer	Institute of Electrical Engineering SAS, Bratislava, Slovakia
14:45 – 15:00	Jan Dvořák	Optical properties of oxide layers prepared under various deposition conditions	Faculty of Science, Masaryk University, Brno, Czech Republic
15:00 – 15:15	Alica Rosová	3D growth of InN on sapphire with GaN buffer – microstructure analysis	Institute of Electrical Engineering SAS, Bratislava, Slovakia
15:15 – 15:30	Bohumír Zaťko	High-energy electron irradiation of semiconductor detectors and radiation hardness comparison	Institute of Electrical Engineering SAS, Bratislava, Slovakia
15:30 – 15:45	Arpád Kósa	The Influence of the Rapid Thermal Annealing Process on Defect Distribution in GaAsN Schottky diodes	Institute of Electronics and Photonics, Slovak University of Technology in Bratislava, Slovakia

<b>Tuesday, 23 November 2021</b>			
9:00 – 9:40	<b>IL6</b> Bert Stegemann	Control and Beneficial Utilization of Laser-Induced Energy Input in Patterning of Chalcopyrite and Perovskite Solar Cells.	HTW Berlin, University of Applied Sciences, Berlin, Germany
9:40 – 10:20	<b>IL7</b> Ivan Ohlídal	Optical characterization of inhomogeneous thin films with randomly rough boundaries using spectroscopic ellipsometry and spectroscopic reflectometry	Masaryk University, Brno, Czech Republic
10:20– 11:00	<b>IL8</b> Štefan Chromik	MoS2 two dimensional system prepared by PLD method on different substrates	Institute of Electrical Engineering SAS, Bratislava, Slovakia
11:00 – 11:40	<b>IL9</b> Nataliya L. Shwartz	Local step bunching during the vicinal GaAs(111) substrate high-temperature annealing	Russian Academy of Sciences, Novosibirsk, Russia
11:40 – 12:05	<b>3</b> Stanislava Serecunova	Design of 1 × 8 multimode interference splitter based on SiN material platform	V-Research GmbH, Dornbirn, Austria
<b>12:05 – 13:10</b>	<b>Lunch</b>		
13:10 – 13:50	<b>IL10</b> Aarne Kasikov	Dispersion of titania TiO <sub>2</sub> -II high-pressure phase based on ellipsometric measurements	Institute of Physics, University of Tartu, Tartu, Estonia
13:50 – 14:15	<b>4</b> Patrik Miček	Microring zone structure for near-field probes	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia
	<b>Poster session</b>		
14:15 - 14:30	Seong Park	Fabrication of petal shaped Al-doped ZnO / CdO heterostructure for enhanced performance of NO <sub>2</sub> gas sensing properties	Sungkyunkwan University, Suwon, Korea
14:30 - 14:45	Zdenko Zápražný	Characterization of thickness homogeneity of Si crystal membranes produced by single point diamond turning	Institute of Electrical Engineering SAS, Bratislava, Slovakia
14:45 - 15:00	Daniel Jandura	Preparation of polymer Inverted Refractive-Index-Contrast Grating on Si substrate	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia
15:00 - 15:15	Peter Ondrejka	MoS <sub>2</sub> based structures for energy storage and conversion application	Institute of Electronics and Photonics, Slovak University of Technology in Bratislava, Slovakia
15:15 - 15:30	Johann Zehetner	Preparation of laser induced periodic surface structures to increase the surface area for NiO and TiO <sub>2</sub> gas sensing thin films	Research Centre for Microtechnology, University of Applied Sciences, Dornbirn, Austria
15:30 – 16:10	<b>IL11</b> Roman Sobolewski	Coherent acoustic phonons in the Bi <sub>2</sub> Se <sub>3</sub> nanolayer system explored by femtosecond, optical pump-probe spectroscopy	Department of Electrical and Computer Engineering, University of Rochester, Rochester, USA

<b>Wednesday, 24 November 2021</b>			
9:00 – 9:40	<b>IL12</b> Erik Piatti	Tuning quantum phases in transition metal dichalcogenides via ionic liquid gating-induced protonation	Department of Applied Science and Technology, Politecnico di Torino, Italy
9:40 – 10:20	<b>IL13</b> Harri Lipsanen	CVD graphene for flexible electronics applications	Aalto University, Department of Electronics and Nanoengineering, Aalto, Finland
10:20 – 10:45	<b>5</b> Emil Pinčík	About porous silicon solar cells and CN-based passivation of defect states	Institute of Physics SAS, Bratislava, Slovakia
<b>Poster session</b>			
10:45 - 11:00	Jakub Drobny	Electrically Active Defects in SiC Planar Power MOSFET	Institute of Electronics and Photonics, Slovak University of Technology in Bratislava, Slovakia
11:00 - 11:15	Andrea Sagatova	Influence of SI GaAs base material on detector radiation hardness against high-energy electrons	Faculty of Electrical Engineering and Information Technology, Slovak University of Technology, Bratislava, Slovakia
11:15 - 11:30	Ivana Lettrichova	Polymer-based inverted pyramids for SERS	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia
11:30 – 11:45	Matej Goras	Interference-based optical fiber probe for topography scanning of surfaces with low roughness	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia
11:45 - 12:00	Robert Brunner	Reflectance of layered silicon structures	Institute of Physics SAS, Bratislava, Slovakia
12:00 - 12:15	Martin Kemény	Advanced electrochemical characterisation and analysis of degradation mechanism in Li-ion battery	Institute of Electronics and Photonics, Slovak University of Technology in Bratislava, Slovakia
12:15 - 12:30	Ghemid Mouna	The effect of Zinc precursor nature on the surface morphology of indium zinc tin oxide (IZTO) films and their photocatalytic performance	Faculty of Physics, University of Science & Technology. (U.S.T.H.B), Algiers, Algeria
12:30 - 13:10	<b>IL13</b> Joanna Bauer	Theranostic nanosystems for combating drug resistant pathogens	Wroclaw University of Technology, Wroclaw, Poland

Moderator of all presentations: Ms. Maria Pincikova