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

SREN 2021

Monday, 22 November 2021			
9:00 – 9:10	Emil Pinčík	OPENING	Institute of Physics SAS, Bratislava, Slovakia
9:10 – 9:50	**IL1** Dietrich R.T. Zahn	Tip-enhanced spectroscopies for studying 2-dimensional semiconductors and their interfaces	Technische Universität Chemnitz, Chemnitz, Germany
9:50 – 10:30	**IL2** 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	**IL3** 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	**IL4** Yossi Paltiel	About chiral spintronics	Hebrew University of Jerusalem, Israel
11:50 – 13:00	**Lunch**		
13:00 – 13:40	**IL5** Vitaly L. Alperovich	Interaction of vicinal and dislocation-induced atomic steps on crystal surfaces	Institute of Semiconductor Physics, Novosibirsk, Russia
13:40 – 14:05	**1** Dušan Pudiš	Near-field probes based on nanocones and nanopyramides	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia
14:05 – 14:30	**2** 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
	Poster session		
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

Tuesday, 23 November 2021			
9:00 – 9:40	**IL6** 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	**IL7** 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	**IL8** Štefan Chromik	MoS2 two dimensional system prepared by PLD method on different substrates	Institute of Electrical Engineering SAS, Bratislava, Slovakia
11:00 – 11:40	**IL9** 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	**3** Stanislava Serecunova	Design of 1× 8 multimode interference splitter based on SiN material platform	V-Research GmbH, Dornbirn, Austria
12:05 – 13:10	**Lunch**		
13:10 – 13:50	**IL10** Aarne Kasikov	Dispersion of titania TiO2-II high-pressure phase based on ellipsometric measurements	Institute of Physics, Univesity of Tartu, Tartu, Estonia
13:50 – 14:30	**IL11** Roman Sobolewski	Coherent acoustic phonons in the Bi2Se3 nanolayer system explored by femtosecond, optical pump-probe spectroscopy	Department of Electrical and Computer Engineering,University of Rochester, Rochester, USA
14:30 – 14:55	**4** Patrik Miček	Microring zone structure for near-field probes	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia
	Poster session		
14:55 – 15:10	Seong Park	Fabrication of petal shaped Al-doped ZnO / CdO heterostructure for enhanced performance of NO2 gas sensing properties	Sungkyunkwan University, Suwon, Korea
15:10 – 15:25	Zdenko Zápražný	Characterization of thickness homogeneity of Si crystal membranes produced by single point diamond turning	Institute of Electrical Engineering SAS, Bratislava, Slovakia
15:25 – 15:40	Peter Ondrejka	MoS2 based structures for energy storage and conversion application	Institute of Electronics and Photonics, Slovak University of Technology in Bratislava, Slovakia
15:40 – 15:55	Johann Zehetner	Preparation of laser induced periodic surface structures to increase the surface area for NiO and TiO2 gas sensing thin films	Research Centre for Microtechnology, University of Applied Sciences, Dornbirn, Austria
15:55 – 16:10	Daniel Jandura	Preparation of polymer Inverted Refractive-Index-Contrast Grating on Si substrate	Faculty of Electrical Engineering and Information Technology, University of Žilina, Slovakia

Wednesday, 24 November 2021			
9:00 – 9:40	**IL12** 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	**IL13** Harri Lipsanen	CVD graphene for flexible electronics applications	Aalto University, Department of Electronics and Nanoengineering, Aalto, Finland
10:20 – 10:45	**5** Emil Pinčík	About porous silicon solar cells and CN-based passivation of defect states	Institute of Physics SAS, Bratislava, Slovakia
	Poster session		
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 Goraus	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	**IL14** Joanna Bauer	Theranostic nanosystems for combating drug resistant pathogens	Wroclaw University of Technology, Wroclaw, Poland

Moderator of all presentations: Ms. Maria Pincikova