



**12th International conference
Solid State Surfaces and Interfaces**

Program of the SSSI 2022

Smolenice Castle

Monday, 21 November 2022			
8:30 – 10:30	Registration of participants (it will continue during whole day in the SSSI Registration office)		
10:30 – 10:40	Opening		
Moderator:	<i>Dr. Emil Pinčík, Institute of Physics, SAS, Bratislava, Slovakia</i>		
10:40 – 11:20	IL1 Prof. Thomas Chassé	Surface analysis of plasma and chemically treated technical polymer and stainless steel surfaces	Institut für Physikalische und Theoretische Chemie, Universität Tübingen, Germany
11:20 – 12:00	IL2 Prof. Grzegorz Jung	Superconducting proximity effect through chiral molecular interface	Ben Gurion University of the Negev, Beer Sheva, Israel and Institute of Physics Polish Academy of Sciences, Warsaw Poland
12:00 – 13:00	Lunch		
13:00 – 13:40	IL3 Prof. Ivan Ohlídal	Optical properties of polymer-like thin films prepared by plasma enhanced chemical vapor deposition	Faculty of Science, Masaryk University, Brno, Czech Republic
13:40 – 14:20	IL4 Assoc.Prof. Martin Moško	Point contact spectroscopy of superconductors using nanofilament in a titanium-oxide based memristor	Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovakia
14:20 – 15:00	IL5 Dr. Jiří Vohánka	Determining the power spectral density function of randomly rough surfaces by means of angle-resolved scattering of light	Faculty of Science, Masaryk University, Brno, Czech Republic
15:00 – 15:20	Coffee Break		
Moderator:	<i>Dr. Štefan Chromik, Institute of Electrical Engineering SAS, Bratislava, Slovakia</i>		
15:20 – 15:55	1 Assoc.Prof. Jan Hanuš	TiO ₂ nanostructured films doped by silver	Charles University, Faculty of Mathematics and Physics, Praha , Czech Republic
15:55 – 16:30	2 Dr. Emil Pinčík	Porous Silicon and Solar Cell Applications	Institute of Physics, SAS, Bratislava, Slovakia
16:30 – 18:00	Trip - Mead tastings		
18:30	Welcome party		

Tuesday, 22 November 2022			
7:30 – 9:00	Breakfast		
Moderator:	<i>Prof. Thomas Chassé, Universität Tübingen, Germany</i>		
9:00 – 9:40	IL6 Prof. Dietrich R.T. Zahn	Tip-enhanced spectroscopies for studying 2-dimensional semiconductors and their interfaces	Technische Universität Chemnitz, Chemnitz, Germany
9:40 – 10:20	IL7 Prof. Pierre Ruterana	The structure of nanoporous GaN for improving the emission properties as investigated by transmission electron microscopy	Centre de Recherche sur les Ions, les Matériaux et la Photonique, Caen, France
10:20 – 10:40	Coffee break		
10:40 – 11:20	IL8 Prof. Roman Martoňák	Quantum and classical ripples in graphene	Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovakia
11:20 – 12:00	IL9 Dr. Štefan Chromik	Structural properties of MoS ₂ and WS ₂ two-dimensional systems prepared by PLD method on some specific substrates	Institute of Electrical Engineering SAS, Bratislava, Slovakia
12:00 – 13:00	Lunch		
Moderator:	<i>Prof. Grzegorz Jung, Ben Gurion University of the Negev, Beer Sheva, Israel</i>		
13:00 – 13:40	IL10 Dr. Aarne Kasikov	Guestimate for a growth of inhomogeneous HfO ₂ layer	Institute of Physics, University of Tartu, Tartu, Estonia
13:40 – 14:20	IL11 Assoc.Prof. Stanislav Jurecka	The properties of CuFeO ₂ and Mo ₂ N layers for photoelectrochemical production of hydrogen	Institute of Aurel Stodola, University of Žilina, Slovakia
14:20 – 14:45	3 Prof. Mikhail Belogolovskii	Probing supercurrent spatial distribution in interlayer barriers with Josephson interferometry	Kyiv Academic University, Ukraine
14:45 – 15:10	4 Ing. Pavol Nemeč	TiO ₂ as an active layer in a gas sensor	Institute of Informatics, Slovak Academy of Sciences, Slovakia
15:10 – 17:00	Coffee break + Poster session		
17:00 – 22:30	Visit of Ballet in Slovak National Theatre, Bratislava: Frederick Ashton – LA FILLE MAL GARDÉ		
18:00 – 19:00	Dinner		

POSTER SESSION			
1	Dr. Daniel Franta	Optical properties of porous films determined using the Universal Dispersion Model: application to GdF_3	Faculty of Science, Masaryk University, Brno, Czech Republic
2	Assoc.Prof. Maroš Gregor	Magnetic vortex pinning in a superconductor/ferromagnet bilayer	Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovakia
3	Dr. Marianna Špankova	Structural properties of few monolayer thick MoS ₂ films prepared on GaN and sapphire substrates	Institute of Electrical Engineering SAS, Slovakia
4	Mgr. Michal Patrnčiak	Metal oxide semiconductor gas sensor with built-in memory and nanoporous top electrode	Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovakia
5	Dr. Elena Zhitlukhina	Ubiquitous near-T _c resistance peak in NbN superconducting films	O.O. Galkin Donetsk Institute for Physics and Engineering, National Academy of Sciences of Ukraine, Ukraine
6	Ing. Michal Bennár	Impact of organic based chiral molecules on perovskites	Institute of Electrical Engineering SAS, Slovakia
7	Dr. Júlia Mičová	Comparison of the Influence of Doping and Plasma Treatment on the Photocatalytic Efficiency of Zinc Oxid	Institute of Chemistry, Slovak Academy of Sciences, Slovakia
8	Dr. Marcel Talacko	Shapiro-like Steps on Electron Irradiated YBCO Thin Film Structures and their Time Stability	Institute of Electrical Engineering SAS, Slovakia
9	Dr. Emil Pinčík	Formation and properties of plasma oxide/GaAs structure	Institute of Physics, SAS, Bratislava, Slovakia
10	Dr. Jan Dvořák	The effect of crystallization on optical properties of HfO ₂ thin films	Faculty of Science, Masaryk University, Brno, Czech Republic
11	Dr. Jan Dvořák	Optical characterization of thin films non-uniform in thickness using imaging spectroscopic reflectometry	Faculty of Science, Masaryk University, Brno, Czech Republic
12	Ing. Peter Ondrejka	Preparation of laser induced periodic surface structures on glass and their transfer into sensing elements	Institute of Electronics and Photonics, Slovak University of Technology, Slovakia
13	Dr. Tomáš Ščepka	Fabrication of Low Resistivity Titanium Nitride Thin Films by Reactive Magnetron Sputtering	Institute of Electrical Engineering SAS, Slovakia
14	Dr. Emil Pinčík	Aerodynamic model of spark discharge	Institute of Physics, SAS, Bratislava, Slovakia

Wednesday, 23 November 2022

7:30 – 9:00

Breakfast

Moderator:

Prof. Dietrich R.T. Zahn, Technische Universitaet Chemnitz, Chemnitz, Germany

9:00 – 9:40

IL12
Prof. Giovanni Ausanio

Coating of Flexible PDMS Substrates through Matrix-Assisted Pulsed Laser Evaporation (MAPLE) with a New-Concept Biocompatible Graphenic Material

Department of Physics “E. Pancini”, University of Naples Federico II, Naples, Italy

9:40 – 10:20

IL13
Dr. Joanna Bauer

Numerical screening of dietary supplements - assessment of the potential risks and side effects

Wroclaw University of Technology, Wroclaw, Poland

10:20 – 10:40

Coffee break

10:40 – 11:20

IL14
Assoc.Prof. Tomáš Plecenik

Gasistor: a metal oxide semiconductor gas sensor with intrinsic memristive memory

Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovakia

11:20 – 11:50

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Dr. Emil Pinčík

About application of passivation processes on more types of Si-based solar cells

Institute of Physics, SAS, Bratislava, Slovakia

11:50 – 12:00

Conclusion

12:00 – 13:00

Lunch

13:00 – 14:00

Visit of all interesting rooms of the Smolenice castle and information about its history with the guide in English.