

**Progress in Applied Surface, Interface and  
Thin Film Science  
Solar Renewable Energy News  
(SURFINT – SREN VI)  
November 18 – 21, 2019, Florence, Italy**

**Scientific Programme of the SURFINT-SREN VI  
Florence, Italy  
Auditorium al Duomo, 18 - 21 November 2019**



<b>Monday, 18 November 2019</b>			
<b>7:00 – 9:00</b>	<b>Registration of participants in the Auditorium al Duomo (hotel Laurus)</b>		
<b>Chairman:</b>	<b>Prof. Dietrich R.T. Zahn, Technische Universitaet Chemnitz, Germany</b>		
9:00 – 9:15	Dr. Simone Giometti	OPENING	Secretary General of Fondazione Romualdo Del Bianco, Florence, Italy
9:15 – 9:55	<b>IL1</b> Hikaru Kobayashi	Properties of Si-based agent and its medical effects	Institute of Scientific and Industrial Research and CREST, Osaka University, Japan
9:55 – 10:33	<b>IL2</b> Grzegorz Jung	Dark Crackling Noise and Light Controlled Criticality in Hybrid Organic Semiconducting Structures	Department of Physics, Ben Gurion University of the Negev
<b>10:35 – 10:50</b>	<b>Coffee and tea break</b>		
<b>Chairman:</b>	<b>Prof. Hikaru Kobayashi, Institute of Scientific and Industrial Research and CREST, Osaka University, Japan</b>		
10:50 – 11:30	<b>IL3</b> Thomas Chassé	Beyond pentacene – Surface studies of organic molecular films	Universität Tübingen, Germany
11:30 – 12:10	<b>IL4</b> Jun Xu	Comparative study on P and B-doped nano-crystalline Si multilayers	Nanjing University, China
<b>12:10 – 13:30</b>	<b>Lunch</b>		
<b>Chairman:</b>	<b>Prof. Renato Gonnelli, Department of Applied Science and Technology, Politecnico di Torino, Italy</b>		
13:30 – 13:55	<b>IL5</b> Yuki Kobayashi	Fabrication of Si-based agent with high hydrogen generation ability and its application to living bodies with high hydrogen generation ability and its application to living bodies	The Institute of Scientific and Industrial Research, Osaka University, Japan
13:55 – 14:35	<b>IL6</b> Roman Sobolewski	Spintronic Ferromagnet/Normal Conductor Nanobilayers for THz Photonics	University of Rochester, USA
14:35 – 15:15	<b>IL7</b> Nour-eddine Gabouze	Hydrogen peroxide detection using horseradish peroxidase enzyme immobilized on modified porous silicon	Unite De Development Technologie Silicium, Algeria
15:15 – 15:35	<b>1</b> José Carlos Piñero	Lattice performance in smart-cut process for semiconducting diamond devices: a TEM study	Universidad de Cádiz, Spain
<b>15:35 – 15:50</b>	<b>Coffee and tea break</b>		
<b>Chairman:</b>	<b>Prof. Grzegorz Jung, Department of Physics, Ben Gurion University of the Negev</b>		
15:50 – 16:30	<b>IL8</b> Ivan Ohlídal	Optical characterization of thin films with structural defects	Department of Physical Electronics, Masaryk University, Czech Republic
16:30 – 17:10	<b>IL9</b> Tofail Seyd	Structure and interface of samarium/anatase nanocomposites lead to visible light absorption and superparamagnetism	University of Limerick, Ireland
17:10 – 17:50	<b>IL10</b> Edmund Dobročka	Structural characterization of textured thin films with various degree of complexity.	Institute of Electrical Engineering SAS, Bratislava, Slovak Republic
17:50 – 18:10	<b>2</b> Tomáš Ščepka	Damping in Ru/Co-based multilayer films with large Dzyaloshinskii-Moriya interaction	Institute of Electrical Engineering, Slovak Republic
<b>19:00 – 22:00</b>	<b>Welcome party in restaurant Lorenzo de Medici, Via del Giglio 49/51r - Florence</b>		

<b>Tuesday, 19 November 2019</b>			
<b>7:00 – 8:30</b>	<b>Breakfast</b>		
<b>Chairman:</b>	<b>Assoc. Prof. Jozef Novák, Institute of Electrical Engineering SAS, Slovak Republic</b>		
8:30 – 9:10	<b>IL11</b> Dietrich R.T. Zahn	Optical Spectroscopies with Nanometer Lateral Resolution for Surface and Interface Characterisation	Technische Universität Chemnitz, Chemnitz, Germany
9:10 – 9:50	<b>IL12</b> Dagmar Gregušová	GaAs nanomembranes in device technology	Institute of Electrical Engineering SAS, Slovak Republic
9:50 – 10:30	<b>IL13</b> Bert Stegemann	Laser Patterning of Chalcopyrite and Perovskite Thin Films For Monolithic Series Interconnection	HTW Berlin, University of Applied Sciences, Germany
<b>10:30 – 10:45</b>	<b>Coffee and tea break</b>		
<b>Chairman:</b>	<b>Prof. Roman Sobolewski, University of Rochester, USA</b>		
10:45– 11:25	<b>IL14</b> Jozef Novák	winned nanoparticle structures for Surface Enhanced Raman Scattering	Institute of Electrical Engineering SAS, Slovak Republic
11:25– 12:05	<b>IL 15</b> Ehtsham-Ul Haq	Atomic Force Microscopy and Contact Angle Characterization of Surface Free Energy: Towards Standardized Measurement Protocol at Multiple Length Scales	University of Limerick, Ireland
<b>12:05 – 13:30</b>	<b>Lunch</b>		
<b>Chairman:</b>	<b>Prof. Nour-eddine Gabouze, Unite De Development Technologie Silicium, Algeria</b>		
13:30 – 14:10	<b>IL16</b> Victor Kislyuk	Impact of low energy ion beams on the properties of rr-P3HT films	G.V.Kurdyumov Institute of Metal Physics, Ukraine
14:10 – 14:50	<b>IL17</b> Teresa I. Madeira	icro to Nano Characterisation Techniques in Arts and Cultural Heritage	Semiconductor Physics, Chemnitz University of Technology, Germany
14:50 – 15:30	<b>IL18</b> Nataliya L. Shwartz	Evolution of III-V semiconductor surface morphology during Langmuir evaporation	Rzhanov Institute of Semiconductor Physics, Novosibirsk State Technical University, Russia
<b>15:30 – 15:45</b>	<b>Coffee and tea break</b>		
<b>Chairman:</b>	<b>Prof. Bert Stegemann, HTW Berlin, University of Applied Sciences, Germany</b>		
15:45 – 16:25	<b>IL 19</b> Wu Lu	Temperature Dependent Carrier Transport in Few-Layered MoS2: from Resonant Tunneling, to Hopping, and to Band Transport	Department of Electrical and Computer Engineering, Ohio State University, USA
16:25 – 16:45	<b>3</b> Mária Omastová	Surface properties of 2D nanoparticles	Polymer Institute SAS, Bratislava, Slovakia
16:45 – 17:05	<b>4</b> Luke Guinane	Investigation of defects on electrical properties of ultrathin high-k dielectrics	University of Limerick, Ireland
<b>17:05 – 19:00</b>	<b>POSTER Session I with refreshment, coffee, tea, etc.</b>		

<b>Wednesday, 20 November 2019</b>			
<b>7:00 – 8:30</b>	<b>Breakfast</b>		
<b>Chairman</b>	<b>Prof. Ivan Ohlídal, Department of Physical Electronics Faculty of Science, Masaryk University Czech Republic</b>		
8:30 – 9:10	<b>IL20</b> Joanna Bauer	Nanotheranostic approach for cancer treatment	Wroclaw University of Technology, Poland
9:10 – 9:50	<b>IL21</b> Nadia Saoula	Deposition of Transition metal oxide coatings and applications	Division Milieux Ionisés, Centre de Développement des Technologies Avancées CDTA, Algérie
9:50 – 10:30	<b>IL22</b> Beata Butvinova	Impact of surfaces on the magnetic properties of Fe-based nanocrystalline ribbons	Institute of Physics Slovak Academy of Sciences Bratislava, Slovak Republic
<b>10:30 – 10:45</b>	<b>Coffee and tea break</b>		
<b>Chairman:</b>	<b>Prof. Tofail Seyd, University of Limerick, Ireland</b>		
10:45 – 11:25	<b>IL23</b> Milan Mikula	Solution processed TiO <sub>2</sub> blocking layers in printed perovskite solar cells with carbon back electrode	Faculty of Chemical and Food Technology STU in Bratislava Slovak Republic
11:25 – 12:05	<b>IL24</b> Renato Gonnelli	High-Tc superconductivity in field-effect hole-doped hydrogenated diamond: An ab-initio approach	Department of Applied Science and Technology, Politecnico di Torino, Italy
<b>12:05 – 13:30</b>	<b>Lunch</b>		
<b>Chairman:</b>	<b>Prof. Thomas Chassé, Institut für Physikalische und Theoretische Chemie, Universität Tübingen, Germany</b>		
13:30 – 14:10	<b>IL25</b> Erik Piatti	Towards electric-field-induced superconductivity in ion-gated diamond surfaces	Politecnico di Torino, Italy
14:10 – 14:50	<b>IL26</b> Karrina McNamara	Tantalum coating inhibits Ni-Migration from Titanium out-diffusion in NiTi Shape Memory Biomedical Alloy	University of Limerick, Ireland
14:50 – 15:10	<b>5</b> Pavol Neilinger	Observation of quantum corrections to conductivity of disordered MoC films up to optical frequencies	Comenius university in Bratislava, Slovak Republic
15:10 – 15:30	<b>6</b> Krystian Mistewicz	Humidity dependent impedance characteristics of SbSeI nanowires	Silesian University of Technology, Poland
<b>15:30 – 15:45</b>	<b>Coffee and tea break</b>		
<b>Chairman</b>	<b>Prof. Wu Lu, Department of Electrical and Computer Engineering, Ohio State University, USA</b>		
15:45 - 16:25	<b>IL27</b> Stanislav Jurečka	Microstructure and optical properties of etched silicon layers for photovoltaic applications	Institute of Aurel Stodola, University of Žilina, Slovak Republic
16:25 – 16:45	<b>7</b> František Dubecký	Transport characteristics, performance and application aspects of M/SI-GaAs/M diodes with symmetrical Gd- and Mg-based electrodes	Institute of Electrical Engineering, Slovak Academy of Sciences, Slovak Republic
16:45 – 17:05	<b>8</b> Azhar Ali Haidry	Acetone sensing applications of Ag modified TiO <sub>2</sub> porous nanoparticles synthesized via facile hydrothermal method	Nanjing University of aeronautics and astronautics, China
<b>17:05 – 19:00</b>	<b>POSTER Session II with refreshment, coffee, tea, etc.</b>		

<b>Thursday, 21 November 2019</b>			
<b>7:00 – 8:30</b>	<b>Breakfast</b>		
<b>9:00 – 18:00</b>	<b>Trip Pisa and Lucca Grand Tour including Typical Pastry Tasting</b>		
<b>Chairman:</b>	<b>Assoc. Prof. Stanislav Jurečka, Institute of Aurel Stodola, University of Žilina, Slovak Republic</b>		
8:30 – 9:10	<b>IL28</b> Štefan Chromik	Preparation, structural and electrical properties of YBCO strips with channels created by electron irradiation	Institute of Electrical Engineering SAS, Slovak Republic
9:10 – 9:50	<b>IL29</b> Martin Kopani	Effect of etching time on structure of n-type porous silicon	Institute of Medical Physics, Biophysics, Informatics and Telemedicine MF CU, Slovak Republic
9:50 – 10:10	<b>9</b> Nikola Papež	Effect of gamma radiation on properties and performance of GaAs based solar cells	Brno University of Technology, Czech Republic
<b>10:10 – 10:25</b>	<b>Coffee and tea break e and tea break</b>		
<b>Chairman</b>	<b>Dr. Joanna Bauer, Wroclaw University of Technology, Poland</b>		
10:25 – 10:55	<b>IL30</b> Nanasahab Devappa Thorat	Magnetically active drug delivery and cancer therapy using graphine oxide	Department of Biomedical Engineering, Faculty of Fundamental Problems of Technology, Wroclaw University of Science and Technology, Poland
10:55 – 11:15	<b>10</b> Adil Raza	Synergistic adsorption-photocatalytic performance of Nickel doped Cu <sub>2</sub> ZnSnS <sub>4</sub> semiconductor under visible light	Nanjing University of aeronautics and astronautics, China
11:15 – 11:35	<b>11</b> AHMAR MEHMOOD	Influence of applied voltage on optimal performance and durability of undoped and Vanadium doped WO <sub>3</sub> films for electrochromic applications.	Nanjing University of aeronautics and astronautics, China
11:35 – 12:15	<b>IL 31</b> Giovanni Piero PEPE		Universita di Napoli 'Federico II', Napoli, Italy
<b>12:15 – 12:30</b>	<b>Conclusion – results of competition of works of young researchers</b>		
<b>12:30</b>	<b>Lunch</b>		