

Monday 18.6.2018

12:30- Registration

13:00-14:00 Lunch

14:00 Opening

14:10-18:50 Sessions 1, 2

19:00-22:00 Welcome party

Tuesday 19.6.2018

8:30 -12:50 Sessions 3, 4

13:00-14:00 Lunch

14:00-18:30 Sessions 5, 6 - Student competition

19:00 Conference Dinner

Wednesday 20.6.2018

8:00-18:00 Social program

18:00-19:00 Dinner

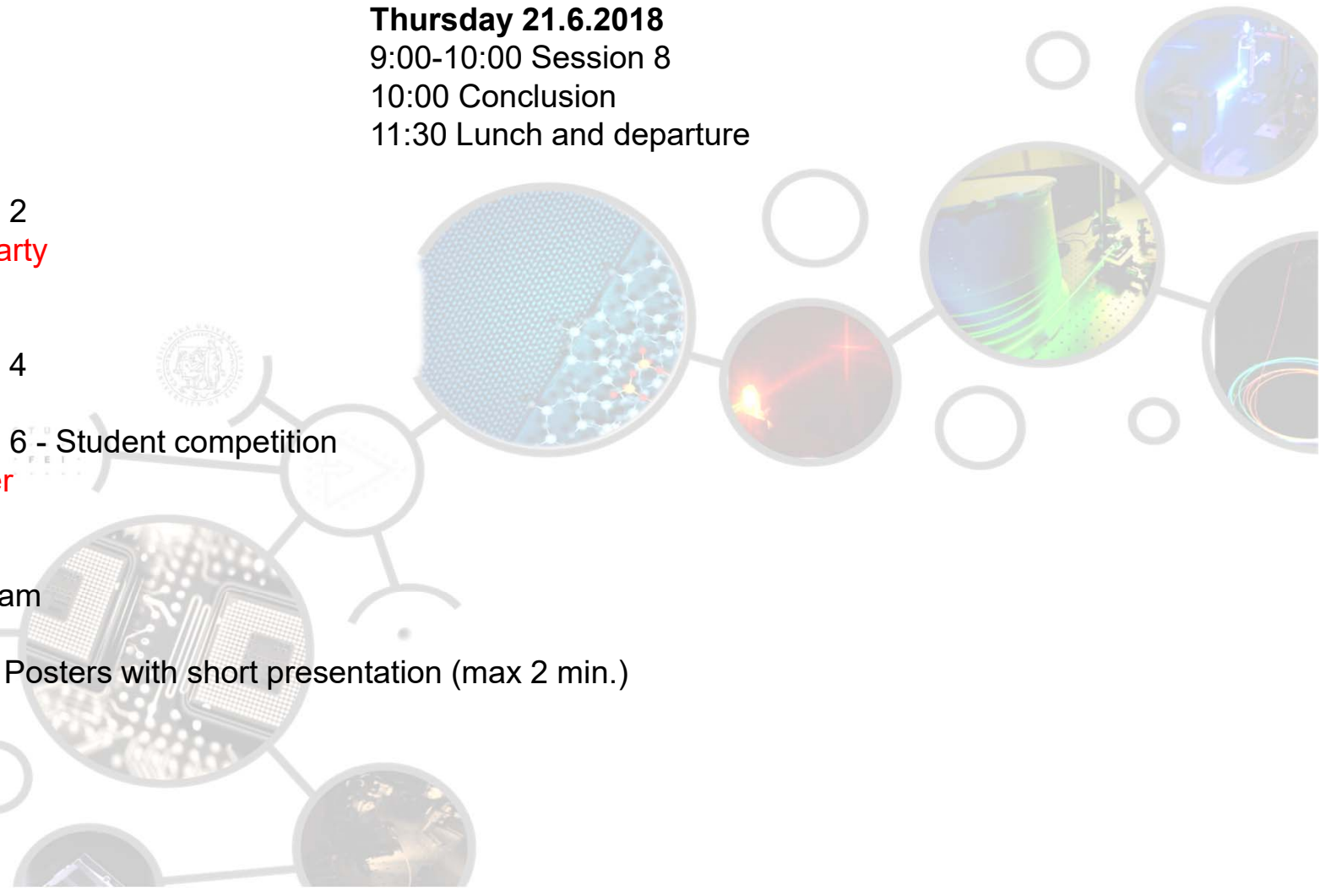
19:15-21:00 Session 7 - Posters with short presentation (max 2 min.)

Thursday 21.6.2018

9:00-10:00 Session 8

10:00 Conclusion

11:30 Lunch and departure



session 1

Monday, June 18

• Advanced semiconductor materials technology and characterization methods •

14:00 **CONFERENCE OPENING**

14:10 **Áč V.** Physical and technological limits of silicon microelectronics

14:50 **Grzelakowski K.** Energy selective electron analysis and imaging: LEED, LEEM, AES, $\Delta\phi$, UPS & XPS in DEEM as a novel methodology for topographic-, atomic- and band structure determination

15:30 **Huran J.** Electron emission from N-doped carbon-based very thin films prepared by reactive magnetron sputtering

15:50 **Hulman M.** Spectroscopy of horizontally and vertically aligned thin MoS₂ films

16:10 **Dubecký F.** Study of metal/semi-insulating GaAs/metal contacts: symmetrical geometry

16:30 **Coffee break**

session 2

Monday, June 18

• **Advanced analysis methods** •

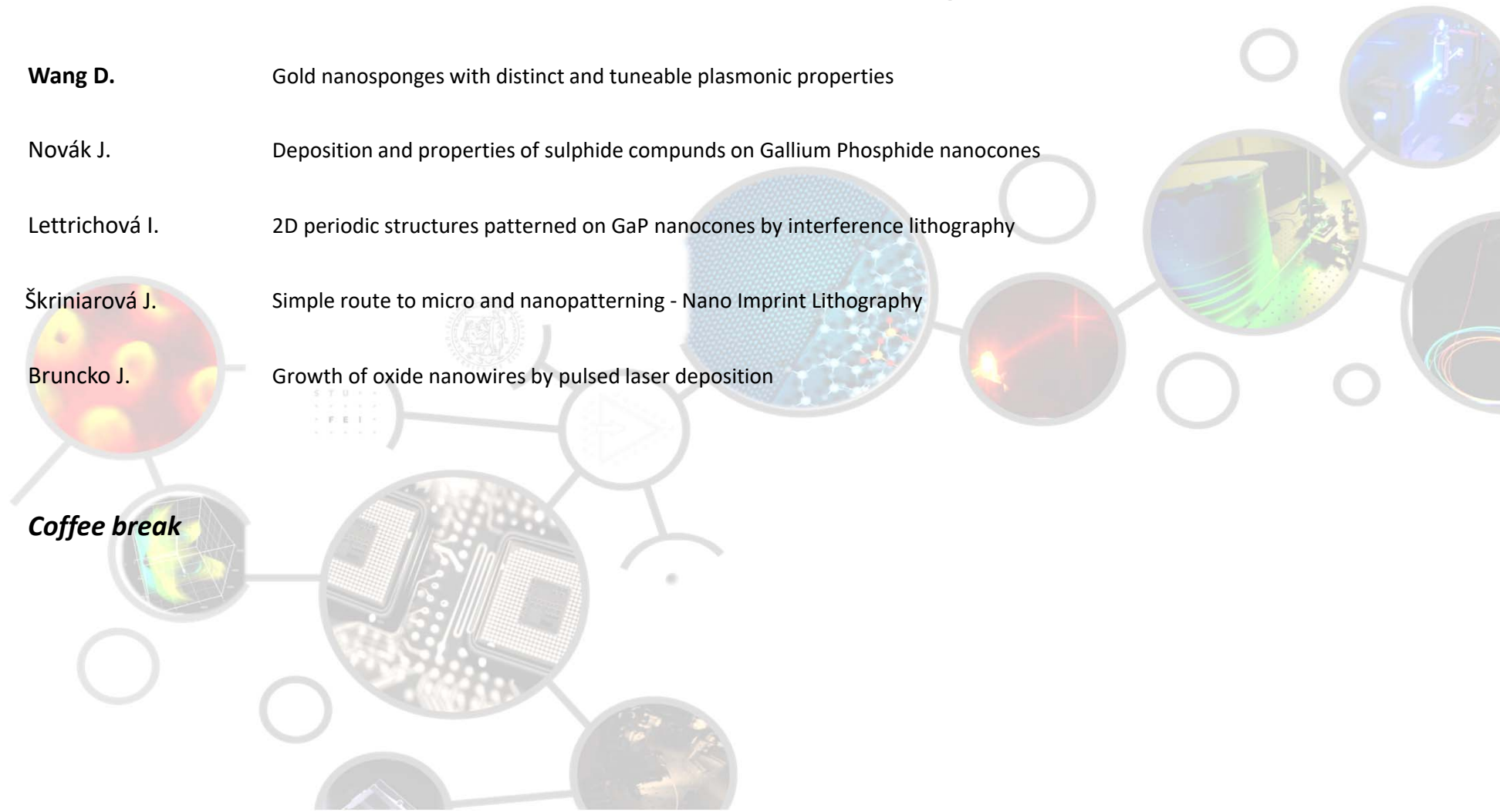
- 16:50 **Minj A.** Advanced analysis of III-N based heterostructures and devices at nanoscale
- 17:30 Radzewicz D. AP-MOVPE growth and characterization of InGaAsN epilayers for photovoltaic applications
- 17:50 Pucicki D. Analysis of energetic structures and optical properties of GaInNAs/GaAs QWs
- 18:10 Kováč J. Analysis of 4H-SiC diode structure using Micro-Raman setup
- 18:30 Haško D. Mechanical property mapping of extracellular matrix for 3D cell cultures
- 19:00 **Welcome Party**

session 3

Tuesday, June 19

• **Nanostructures and nanotechnologies** •

- 8:30 **Wang D.** Gold nanosponges with distinct and tuneable plasmonic properties
- 9:10 Novák J. Deposition and properties of sulphide compounds on Gallium Phosphide nanocones
- 9:30 Lettrichová I. 2D periodic structures patterned on GaP nanocones by interference lithography
- 9:50 Škriniarová J. Simple route to micro and nanopatterning - Nano Imprint Lithography
- 10:10 Bruncko J. Growth of oxide nanowires by pulsed laser deposition
- 10:30 **Coffee break**

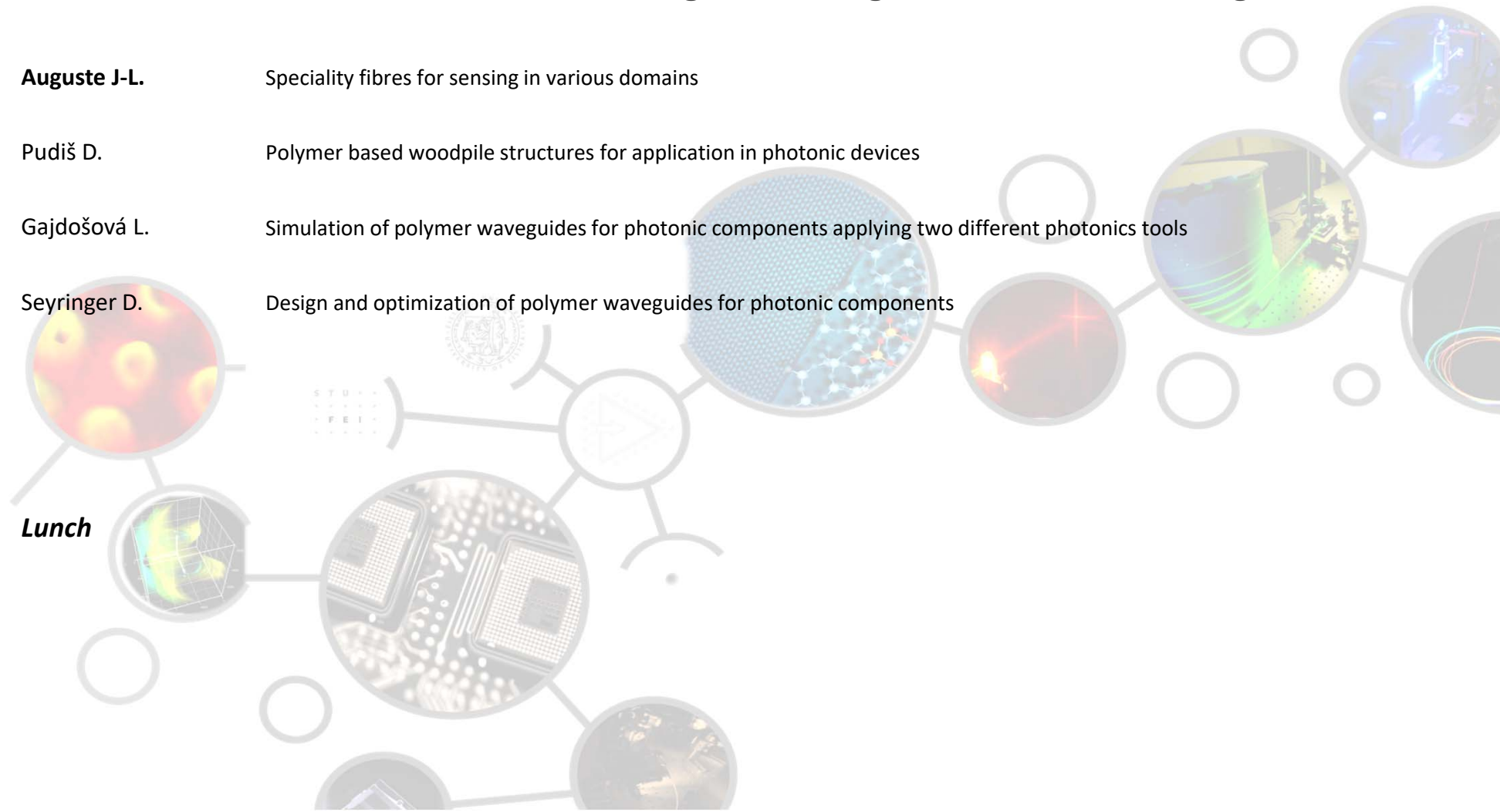


session 4

Tuesday, June 19

• Photonic devices and circuits design, modeling, simulation and testing •

- 10:50 **Auguste J-L.** Speciality fibres for sensing in various domains
- 11:30 **Pudiš D.** Polymer based woodpile structures for application in photonic devices
- 11:50 **Gajdošová L.** Simulation of polymer waveguides for photonic components applying two different photonics tools
- 12:10 **Seyringer D.** Design and optimization of polymer waveguides for photonic components
- 13:00 **Lunch**



• **Student competition** •

- 14:00 Owczarzak S. Mask modification for ISWA control after RIE process dedicated for piezotronic device fabrication
- 14:15 Kiliszkiwicz M. Automatic measurement of matrix with organic thin-film transistor (OTFs)
- 14:30 Černaj Ľ. SPICE-like 3D electrothermal simulation of multifinger power HEMTs
- 14:45 Przybylski D. Technology-related issues of modeling of two-dimensional photonic crystals
- 15:00 Ilgiewicz G. Wolfram as alternative for gold in preparation of ohmic alloyed contacts to AlGa_N/Ga_N heterostructures.
- 15:15 Urbancová P. Diffraction of polymer based woodpile structure applied in photonic devices
- 15:30 Glinkowski M. Correlation between scattering mechanism of electrons and the properties of AlGa_N/Ga_N HEMT type heterostructures
- 15:45 Veveričík M. Influence of superionic nanoparticles on structural changes in liquid crystals
- 16:00 **Coffee Break**

• **Student competition** •

- 16:15 Paszkiewicz B. Acoustic transducer fabricated in AlGa_N/Ga_N heterostructure for piezotronics applications
- 16:30 Goras M. 3D polymer waveguides with surface Bragg grating
- 16:45 Kijaszek W. Spectroscopic Ellipsometry investigation of Silicon Oxynitride thin films deposited by RF PECVD method
- 17:00 Kosmała A. Elaboration of Cr/sapphire photolithographic mask fabrication process
- 17:15 Kosior Ł. Selective area epitaxial regrowth of buried heterostructures for QCL application
- 17:30 Bielak K. Structural characterization of InGaAs/AlInAs superlattice
- 17:45 Chery N. Investigation of green-red emitting InGa_N/Ga_N multiple quantum wells with AlGa_N strain compensating layers
- 19:00 **Conference Dinner**

session 7

19:15 - 21:00

Wednesday, June 20

• **Posters** •

- 1 Zięba A. Ellipsometric investigation of structures prepared with focused ion beam – notes on sample's preparation
- 2 Ceballos G. Instrumental and experimental aspects of monochromatic intense UV illumination in the photoelectron spectromicroscopy DEEM: 2D band structure real time characterization
- 3 Danko Š. Process and Temperature Invariant Ring Oscillator for Chirp-UWB Applications
- 4 Nevřela J. Production of progressive PhC structures for OLEDs using nanoimprint lithography
- 5 Novota M. Electrical characterization of [1]benzothieno[3,2-b]benzothiophene-based derivatives with different side chains
- 6 Mičjan M. Evaluation of organic semiconductor parameters in organic field-effect transistors devices
- 7 Pokryszka P. Influence of UV radiation on drain current in AlGa_N/Ga_N HEMT transistor
- 8 Korbutowicz R. Preliminary studies on the thermal synthesis of Gallium Tin Oxide nanostructures
- 9 Kardoš S. Plantar sensor array for gait cycle evaluation
- 10 Sojkova M. Influence of the substrate on the growth of thin MoS₂ films prepared by one zone sulfurization

session 7

19:15 - 21:00

Wednesday, June 20

• Posters •

- 11 Kacik D. Highly sensitive temperature sensor based on Vernier effect
- 12 Uherek F. Design and Simulation of Si/SiO₂/SiN Waveguides Structure
- 13 Pribytny P. TCAD simulation methodology for 3-D electro-physical and advanced thermal analysis of power modules
- 14 Ďurišová J. Mach-Zehnder interferometer as a refractive index sensor for sugar concentration in water
- 15 Uherek M. Fluorescence lifetime diagnostics of bryophytes
- 16 Jandura D. 3D micro-optical elements for microspectrometer applications
- 17 Suslik L. Radiation properties of LEDs with 1D PhC on the surface
- 18 Gaso P. 3D printed optical fiber tip for optical sensing
- 19 Stafiniak A. Synthesis and characterization of AlIII-oxide nanowires
- 20 Vavrinský E. The influence of design and wood materials on human physiology

session 7

19:15 - 21:00

Wednesday, June 20

• Posters •

- 21 Pražmowska-Czajka J. Elaboration of oxides nanowires device processes
- 22 Macherzyński W. Influence of various thickness of titanium layer on the properties of ohmic contact Ti/Al/Mo/Au to AlGaN/GaN heterostructures
- 23 Laurenčíková A. Ag decorated GaP nanocones for SERS
- 24 Osvald J. Inhomogeneous schottky barrier height in 4h-sic surface barrier detectors
- 25 Juhász P. Temperature dependence of electrical properties of organic transistors
- 26 Huran J. Amorphous silicon carbide films with wide range of phosphorus concentration: Structural and electrical properties
- 27 Vincze A. OLED Structures Investigation By SIMS

session 8

Thursday, June 21

• Wide bangap based electronic devices and circuits design, simulation and testing •

9:00 Behúl M. Enhancement of the stability of boron doped diamond anodes for wastewater treatment

9:20 Stuchlíková Ľ. DLTFS study of defect distribution in AlGaN/GaN structures

9:40 Vanko G. Thermo-mechanical characterization of GaN micromembranes

10:00 **CONFERENCE CONCLUSION**

11:30 **Lunch**

Departure

