

Wednesday, June 22, Registration 09:00-13:00

Lunch 12:30

14:00 Opening ceremony by Prof. Peter Bury

Wednesday, June 22, Session 1A 14:15-16:15 / Nano-science and technology

14:15 invited lecture by Dr. Eva Majkova

Nanometer sized layered structures - preparation, properties, application

14:45 A. Bartnik, H. Fiedorowicz, R. Jarocki, J. Kostecki, A. Szczurek,
M. Szczurek, P. Wachulak

Micromachining and surface modification of solids using a laser-plasma EUV source

15:00 J. Kovac, T. Brath, I. Novotny, J. Bruncko, D. Buc, O. Kadar,
S. Hasenöhrl, J. Novak

Growth and characterisation of GaP/ZnO heterojunction properties

15:15 J. Breza, K. Pastorkova, M. Kadlecikova, K. Jesenak, M. Caplovicova,
M. Kolmacka, F. Lazistan

Formation of nanocomposites based on carbon nanotubes and silicates

15:30 V. Lisy, J. Tothova

Memory effect on force measurements at nanoscales

15:45 M. Kotlar, V. Vretenar, M. Vesely, R. Redhammer

Growth of single walled carbon nanotubes networks using Al-Ni as catalyst

16:00 J. Jakabovic, J. Kovac, R. Sranek, M. Weis, M. Sokolsky, S. Guldán,
K. Broch, F. Schreiber, D. Donoval, J. Cirak

OTFT with pentacene-gate dielectric interface modified by silicon nanoparticles

Coffebreak 16:15-16:35

Wednesday, June 22, Session 2A 16:35-18:50 / MOS structures

16:35 invited lecture by Prof. Hikaru Kobayashi

Ultra-low power thin film transistors with gate oxide formed by nitric acid oxidation method

17:05 invited lecture by Prof. Marc Wuilpart

Optical reflectometry in the frequency domain for the interrogation of fibre Bragg gratings

17:35 P. Bury, I. Bellan

Calculation of tunneling transport to acoustic evaluation of interface state in ultrathin MOS structures

17:50 A. Chvala, D. Donoval, J. Marek, P. Pribitny, M. Molnar

Characterisation of thermal equivalent circuit for SPICE-like electro-thermal model of power MOSFET

18:05 J. Marek, D. Donoval, A. Chvala, P. Pribitny, M. Molnar

Analysis of a low voltage vertical power MOS transistor failure during UIS test supported by 2-D and 3-D simulations

18:20 M. Nemeč, P. Benko, M. Neupauer, K. Cico, L. Harmatha, K. Frohlich

Preparation and characterization of thin ZrO₂ layers for gate insulation in mosfet

18:35 M. Ziska, L. Harmatha, M. Nemeč, I. Benkovsky

Influence of electron irradiation on MOS structure with CZ and NCZ silicon substrate

Welcome party 19:30

Breakfast 7:00

Thursday, June 23, Session 3A 8:30-10:30 / GaN-based heterostructures

- 8:30** *invited lecture by Prof. Roberto Morandotti* **Efficient wavelength conversion in novel integrated structures**
- 9:00 R. Granzner, N. Mustafa, J. Racko, M. Mikolasek, J. Breza, F. Schwierz On the coexistence of two-dimensional electron and hole gases in GaN-based heterostructures
- 9:15 M. Florovic, P. Hronec, J. Kovac, P. Kordos, J. Skriniarova, D. Donoval Off-state stress and pulse response investigation of InAlN/GaN HFET
- 9:30 M. Petrus, I. Stuchlikova, J. Sebok, L. Harmatha, J. Kovac, M. Nemeč, J. Skriniarova Study of electrical properties of AlGaN/GaN structures by DLTS method
- 9:45 J. Sebok, I. Stuchlikova, J. Pechacek, P. Pisečny, M. Petrus, J. Kovac, M. Nemeč, L. Harmatha, J. Skriniarova Study of electrical properties of AlGaN/GaN structures by capacitance method
- 10:00 K. Rendek, A. Satka, J. Kovac, D. Donoval Investigation of low-frequency noise in AlGaN/GaN HEMT structures under illumination
- 10:15 J. Osvald Possibility to detect deep levels in AlGaN/GaN heterostructures by C-V measurement

Coffebreak 10:30-10:50

Thursday, June 23, Session 4A 10:50-12:50 / Heterostructures and devices

- 10:50** *invited lecture by Prof. Pavel Cheben* **Subwavelength silicon photonics**
- 11:20 D. Radziewicz, B. Sciana, D. Pucicki, I. Zborowska-Lindert, J. Kovac, J. Skriniarova, A. Vincze Characterization and technology of AlGaAs/GaAs phototransistor with double delta-doped base
- 11:35 M. Mikolasek, L. Prusakova, L. Matay, V. Rehacek, J. Jakabovic, G. Vanko, M. Kotlar, L. Harmatha Determination of the conduction band offset in the a-Si:H/c-Si heterojunction structures from coplanar temperature current-voltage measurements
- 11:50 M. Molnar, D. Donoval, J. Kovac, J. Marek, A. Chvala, P. Pribytny Analysis of electrical properties of $\text{In}_{0.12}\text{Al}_{0.88}\text{N}/\text{GaN}$ HEMT transistor supported by TCAD modeling and simulation
- 12:05 J. Rybar, A. Kosa, F. Dubecky, M. Petrus, I. Stuchlikova, J. Benkowska, L. Harmatha, P. Hrkut, D. Bacek, P. Kovac DLTS study of neutron bombarded silicon detector
- 12:20 R. Srnanek, A. Satka, J. Kovac, P. Kordos, D. Donoval Study of stress in GaN-based transistor heterostructures
- 12:35 J. Kravcak Influence of helical anisotropy on GMI effect in Co-based amorphous ferromagnetic microwires

Lunch 12:50

14:00 Hike to Zamkovsky cottage and Waterfalls of Studeny potok

Welcome party 19:30

Breakfast 7:00**Friday, June 24, Session 5A 8:30-10:30 / Materials and radiation**

8:30	J. Sitek, J. Degmova, J. Dekan	Košice meteorite analysis
8:45	J. Dammer, V. Sopko, B. Sopko, V. Vondracek	The measurement with the Medipix2 detector and the RW3 moderator in the neutron field of the Clinac 2100 linear accelerator
9:00	V. Sopko, B. Sopko, J. Dammer, D. Chren, J. Vlk, Z. Kohout	DLTS measurement of energetic levels in silicon detector damaged by neutrons
9:15	F. Dubecky, E. Gombia, G. Vanko, C. Ferrari, M. Baldini, L. Ryc, B. Zatko, V. Necas	Characterization of epitaxial 4H-SiC as material for spectrometric radiation detectors
9:30	B. Zatko, F. Dubecky, K. Sedlackova, P. Bohacek, M. Sekacova, V. Necas	Detection of fast neutrons using semi-insulating GaAs coated by high density polyethylene
9:45	M. Hutnikova, O. Fricova, P. Duranka	NMR study of PHB/Ecoflex blends
10:00	M. Kovalakova, E. Chmielewska, O. Fricova, V. Hronsky, D. Olcak	Chitosan-modified natural clinoptilolite studied by ^{13}C NMR
10:15	M. Pavlovic, M. Miglierini, E. Mustafin, T. Seidl, M. Soka, I. Strasik	Magnetic susceptibility measurements of soft-magnetic metallic glasses under ion bombardment

Coffebreak 10:30-10:50**Friday, June 24, Session 6 10:50-12:35 / Material sciences**

10:50	R. Sranek, J. Jakabovic, J. Kovac, E. Dobrocka, D. Donoval	Thin pentacene layer under pressure
11:05	J. Kecer, L. Novak	Effect of mechanical stress on the magnetic properties of amorphous Fe-B ribbons
11:20	T. Hatala, M. Miglierini	Crystallization of amorphous $(\text{Fe}_{1-x}\text{Co}_x)_{76}\text{Mo}_8\text{Cu}_1\text{B}_{15}$ alloy
11:35	Z. Krajcuskova, M. Kukucka	Unconventional reliability growth model
11:50	G. Vasziova, J. Tothova, L. Glod, V. Lisy	Oscillator driven internally by correlated noise
12:05	V. Sedlak, D. Durackova	Speech signals visualization
12:20	R. Zalusky, M. Krajmer, V. Sedlak, D. Durackova	The recognition characters for dactyl alphabet with use the feed forward neural network

12:35 Closing ceremony**Lunch 12:40**