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SESSION 2(A) *New materials and structures, their analysis, nanostructures* 18:30

Juraj Paulech, Justín Murín, Vladimír Kutiš, and Gabriel Gálik
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Štefan Hardoň, Jozef Kúdelčík, Pavel Trnka, Pavel Totzauer, Jaroslav Hornak, and Ondrej Michal
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Optimizing the Sensing Properties of Race-Track Fluxgates as a Function of Core Layers

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Preparation of Fe-Impregnated Sepiolite Catalytic Layers for Synthesis of Carbon Nanotube Nanocomposites

Vladimír Kutiš, Juraj Paulech, Justín Murín, and Gabriel Gálik
Piezoelectric Finite Beam with LQR Control

Patrik Novák, Marián Janík, Milan Pavúk, and Miroslav Mikolášek
Investigation of Copper Oxide Thin Films for Photoelectrochemical Splitting of Water

Filip Chymo, Karol Fröhlich, Ivan Kundrata, Kristína Hušeková, Ladislav Harmatha, Juraj Racko, Juraj Breza, and Miroslav Mikolášek
Characterization of MIS Photoanode with a Thin SiO_2 Layer for Photoelectrochemical Water Splitting

Marek Veveričík, Peter Bury, Peter Kopčanský, Milan Timko, and Štefan Hardoň
Investigation of External Field Influence on Structural Properties of Doped Nematics Using SAW Technique

Juraj Chlpík, Soňa Kotorová, Tomáš Váry, Vojtech Nádaždy, and Július Cirák
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Pavol Nemec, Ivan Hotový, Robert Andok, and Ivan Kostič
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SESSION 3(A) *Physical properties, structural aspects of materials and their influencing, theory of physical properties, computational physics II.* 18:30

Justín Murín, Martin Minár, Peter Melek, Vladimír Goga, Vladimír Kutiš, and Juraj Paulech
Non-Linear Thermoelastic Analysis of the Nylon Actuator

Juraj Racko, Miroslav Mikolášek, Alena Grmanová, Peter Benko, Magdaléna Kadlečíková, Ladislav Harmatha, and Juraj Breza
A Model of Antiparallel Spontaneous and Piezoelectric Polarizations in AlGaN/GaN

Eva Branická, Mariana Ušáková, Elemír Ušák, Martin Šoka, and Edmund Dobročka
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Hysteretic GMI Behavior of Amorphous Materials in Low Magnetizing Fields

Anna Piorun, Paweł Piorun, Paweł Nowak, and Michał Nowicki
Design of Magnetic Induction Tomography Setup

Michał Nowicki, and Beata Lewandowska
Relative Seebeck Coefficient Differences Used for Metal Sorting

Ladislav Harmatha, Arpad Kosa, Jakub Drobny, Miroslav Mikolasek, Erik Svitac, Peter Benko, Ján Gregus, Silvia Bacová, Peter Zitto, and Lubica Stuchlikova
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WELCOME PARTY 20:00-01:00

Thursday, June 20, 2019

BREAKFAST 07:00

SESSION 4(A) *New materials and structures, nanostructures and thin films, optical phenomena in materials, new principles in sensors and detection methods, applied optics.* 08:30

Jozef Dobrovodský, Dušan Vaňa, Matúš Beňo, and Maximilián Strémy
Parameters of Heavy Ion Elastic Recoil Detection Analysis (HI ERDA) ToF Telescope

Lenka Gajdosova, Dana Seyringer, Peter Gašo, Daniel Jandura, and Dušan Pudiš
Design, Simulation and Technological Realization of Polymer Based 3D 1x4 Splitter

Stanislav Jurečka, Martin Králik, and Emil Pinčík
Microstructure and Optical Properties of Layers Formed by Anodic Etching of Silicon

Stefan Luby, and Jan Ivanco
Graphene-Based Sensors of NO_2, H_2, Acetone, and other Gases/Vapors: State of the Art and Realistic Outlook

Róbert Riedlmajer, Dušan Vaňa, and Marián Hazlinger
Hydrogen Depth Profile Determination of Materials by Elastic Recoil Detection Analysis

SESSION 4(B) ***International workshop:***
Current Successes in the Photoemission and Electron Microscopy I. 08:15

Acknowledgment. *All contributions in this workshop were supported by the project CEDAMNF, reg. no. CZ.02.1.01/0.0/0.0/15_003/0000358, co-funded by the European Regional Development Fund (ERDF).*

Zdeněk Jansa, Lucie Prušáková, Fatima Alarab, Pavol Šutta, and Ján Minár
Structural Analysis of Ni-Doped $SrTiO_3$: XRD Study

Rostislav Medlín, Pavol Šutta, and Petr Novák
XRD and Electron Diffraction Synergies for Textured Thin Films Structure Investigation

Jakub Schusser, Laurent Nicolaï, Mauro Fanciulli, Min-i Lee, Zakariae El Youbi, Olivier Heckmann, Christine Richter, Karol Hricovini, and Ján Minár
Angle-Resolved Photoemission Calculations of WTe_2 Compared to Experiment

Fatima Alarab, Berengar Leikert, Laurent Nicolai, Lucie Prusakova, Pavol Sutta, Zdenek Jansa, Marie-Christine Richter, Ralph Claessen, Jan Minar, and Karol Hricovini
Controlling Fundamental Electronic Interactions in SrTiO3 Thin Films by Ni Doping

Viera Skákalová, Semir Tulić, Thomas Waitz, Mária Čaplovičová, Marián Varga, Viliam Vretenár, Oleksandr Romanyuk, Alexander Kromka, and Bohuslav Rezek
Covalent Diamond–Graphite Bonding: Mechanism of Catalytic Transformation

Ondrej Sipr, Wilayat Khan, and Jan Minar
Density of States and X-Ray Absorption Spectra of Eu-Doped Sulphides

Miroslav Cieslar, Lucia Bajtošová, Michaela Poková, and Jozef Veselý
Automatic Methods in Crystallographic Analysis of Aluminum Materials

COFFEE BREAK 10:00

SESSION 5(A) *Optical phenomena in materials, new principles in sensors and detection methods, applied optics.* 10:30

Norbert Tarjányi, Milan Uhríčik, Daniel Káčik, and Peter Palček
Photoelastic Response of Polycarbonate in NIR

Eylem Gülce Çoker, Hava Can, Selman Selvi, Peter Svec Sr, and Uğur Topal
Design of a DC Current Sensor Based on Fluxgate Principle

Jaroslav Hricko, René Harťanský, Robert Andok, and Ján Halgoš
Additive Manufacturing of a Force/Displacement Sensor Based on Electromagnetic Field Principle

Tomasz Charubin, Michał Nowicki, and Roman Szewczyk
Investigation of High Order Harmonic for Signal Extraction in Matteucci Effect Based Fluxgate Magnetic Sensors

Martin Králik, Stanislav Jurečka, and Emil Pinčík
Determination of Thickness of Electrochemically Etched Si Layers Passivated by Si_3N_4 by Analysis of the Experimental Spectral Reflectance

Dana Seyringer, Lenka Gajdosova, Peter Gašo, and Dušan Pudiš
Design of Polymer Based 8-Channel, 100-GHz AWG Applying Various Photonics Tools

Matúš Vaňko, and Jarmila Müllerová
Numerical Examination of Structural Slow-Light Delays in Fiber Bragg Gratings of Varied Parameters

Johann Zehetner, Stephan Kasemann, and Stefan Partel
Micro and Nano Structured Oxide Features Made by Femtosecond Laser Ablation, Reactive Ion Etching and Lithography

SESSION 5(B) ***International workshop:***
Current Successes in the Photoemission and Electron Microscopy II. 10:30

Acknowledgment. *All contributions in this workshop were supported by the project CEDAMNF, reg. no. CZ.02.1.01/0.0/0.0/15_003/0000358, co-funded by the European Regional Development Fund (ERDF).*

Sunil Wilfred DSouza, and Ján Minár
Electronic Structure and Angle-Resolved Photoemission Spectra of Antiferromagnetic $Mn_2Au(001)$ within the One-Step Model

Ján Minár, Laurent Nicolai, Daisuke Takegami, and Liu Hao Tjeng
Valence Band Hard X-Ray Photoelectron Spectroscopy on 3d Transition-Metal Oxides Containing Rare-Earth Element

Laurent Nicolaï, Sunil Wilfred DSouza, Karol Hricovini, and Ján Minár
Spin- and Angle-Resolved PhotoEmission Spectroscopy Laboratory: a Complete Experimental and Theoretical Analysis

Jan Duchon, Petr Vlcak, Jan Drahokoupil, Jaromir Kopecek, and Jan Manak
TEM Characterization of a TiN/Ti(+N)/Ti Mixture Layer Formed by Nitrogen Ion Implantation into Titanium

Jan Bajer, Stefan Zaunschirm, Michaela Šlapáková, Bernhard Plank, Miroslav Cieslar, and Johann Kastner
Nanoscale Kirkendall Effect on Central Macrosegregation in TRC Al 3003 Alloy

Jan Michalička, Zhijie Jiao, and Gary Was
Novel STEM-EDX Analysis of Radiation-Induced Precipitates in a Self-Ion Irradiated Cold-Worked 316 Austenitic Stainless Steel Used for PWR Baffle-Bolts

SESSION 6(A) *Nuclear Science and Technology* 10:30

Jarmila Degmová, Vladimír Kršjak, Matej Zlatar, Martin Petriska, Stanislav Sojak, and Jana Šimeg Veterníková
Microstructural Properties of Unirradiated RPV Model Steels Revealed by Doppler Broadening Spectroscopy

Tomáš Iliť, Pavol Valko, Milan Držík, Marian Marton, Miroslav Behúl, and Marian Vojs
On The Ultra-Fast Ion Induced Demagnetization in Thin Films

Andrea Šagátová, Bohumír Zaťko, and Vladimír Nečas
Influence of Holder Quality on Radiation Hardness of SI GaAs Detector

Bohumír Zaťko, Ladislav Hrubčín, Pavol Boháček, Jozef Osvald, Andrea Šagátová, Mária Sekáčová, Eva Kováčová, and Vladimír Nečas
Electrical Properties of Detector Schottky Diodes Based on 4H-SiC High Quality Epitaxial Layer

Stanislav Sojak, Vladimír Kršjak, Jarmila Degmová, Martin Petriska, and Vladimír Slugeň
Characterization of Various Reactor Steels by Slow Positron Beam

LUNCH 12:00

SOCIAL PROGRAMME 13:00

DINNER AND FRIENDSHIP PARTY 19:30 - 24:00

Friday, June 21, 2019

BREAKFAST	07:00
SESSION 7 (PLENARY)	09:00

Acknowledgment. *All contributions in this session were supported by the project CEDAMNF, reg. no. CZ.02.1.01/0.0/0.0/15_003/0000358, co-funded by the European Regional Development Fund (ERDF).*

Mariana Klementova, Lukas Palatinus, Jörg Fritz, Ansgar Greshake, Richard Wirth, Vera Assis Fernandes, and Ludovic Ferrière
Application of Electron Diffraction Tomography: Donwilhelmsite - a New Mineral from the Moon

Dominik Kriegner, Gunther Springholz, Carsten Richter, Nicolas Pilet, Elisabeth Müller, Marie Capron, Helmut Berger, Václav Holý, J. Hugo Dil, and Juraj Krempaský
Ferroelectric Self-Poling in GeTe Crystals and Films

Laurent Nicolaï, Ján Minár, Maria Christine Richter, Olivier Heckmann, Jean-Michel Mariote, Weimin Wang, Thiagarajan Balasubramanian,Mats Leandersson, Janusz Sadowsk, Jürgen Braun, Hubert Ebert, Jonathan Denlinger , Ivana Vobornik, Jun Fujii, Pavol Šutta, Martin Gmitra, and Karol Hricovini
Topological States on InBi Crystal Surface

CONCLUDING REMARKS	10:00
COFFEE BREAK	10:10
CHECK OUT AT THE HOTEL RECEPTION	11:00
LUNCH	11:30
DEPARTURE	13:00