

## SCIENTIFIC PROGRAM

Wednesday, June 22, 2022



ARRIVAL OF PARTICIPANTS 09:00 – 13:00

MEETING OF SOLVERS OF THE PROJECT CEDAMNF,  
EXCHANGE OF EXPERIENCES, DISCUSSION 10:00

REGISTRATION AND CHECK-IN AT THE HOTEL RECEPTION 11:00

LUNCH 11:30

OPENING CEREMONY 15:00

---

PLENARY SESSION A1 *Introductory Lectures* 15:05

*Adriana Zeleňáková, Vladimír Zeleňák, Pavol Hrubovčák, Jaroslava Szűcsová, Eva Beňová,  
Luboš Nagy, Michael Barutiak and Štefan Vilček*

**Magnetic Nanoparticles for Solving Diagnostics -Therapeutic Problems with COVID-19**  
(invited lecture)

*Jakub Schusser, Hendrik Bentmann, Maximilian Ünzelmann, Tim Figgemeier, Chul-Hee Min,  
Simon K. Moser, Jennifer N. Neu, Theo Siegrist and Friedrich Reinert*

**Spectroscopic Signatures of Non-Trivial Topology in Weyl Semimetals**  
(invited lecture)

*Vladimir N. Strocov*

**Soft X-Ray ARPES: From Bulk Materials to Buried Heterostructures and Impurities**  
(invited lecture)

*Gerd Schönhense*

**Progress in Photoelectron Momentum Microscopy with Time-of-Flight Recording**  
(invited lecture)

**Acknowledgment.** Last three contributions 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).

COFFEE BREAK 16:30

---

SESSION A2 **International Conference:**  
*Advances in Nuclear Engineering* 17:00

*Przemysław Sękowski, Joanna Matulewicz, Stanisław Gierlotka, Tomasz Horwacik, Izabela Skwira-Chalot, Adam Spyra, Swietlana Stelmakh, Jan Swakoń, Wiktoria Szcześniak, Andrzej Twardowski and Tomasz Matulewicz*

**The BN Samples as Targets for Studies of Nuclear Reactions on Nitrogen:  $^{14}\text{N}(\text{p,d})^{13}\text{N}$  at Proton Energies Used in Hadrontherapy**

*Andrej Novak, Andrea Sagatova and Bohumir Zatko*

**Energy Calibration of Timepix Detector with GaAs Sensor**

*Vendula Filová, Branislav Vrban, Štefan Čerba, Jakub Lüley, Vladimír Nečas and Maria Dugdale*

**Performance Testing of the System for Analysis of PADC Track Detectors for Neutron Dosimetry**

*Štefan Čerba, Branislav Vrban, Jakub Lüley, Vendula Filová, Vladimír Nečas, Ondřej Štastný, Karel Katovský, Marko Gloginjić, Željko Mravik, Marko Erić and Srdjan Petrović*  
**Evaluation of the Responses of the NuDet Neutron Detector in the Mini Labyrinth Experiment**

*Jiří Burian, Štefan Čerba, Marko Erich, Vendula Filová, Marko Gloginjić, Karel Katovský, Jakub Lüley, Željko Mravik, Srdjan Petrović, Ondřej Štastný and Branislav Vrban*  
**Theoretical Simulation and Experimental Testing of Advanced Shielding Materials Properties with Focus on Inhomogeneity and Build-up**

*Karel Katovsky, Jiří Burian, Štefan Čerba, Marko Erich, Vendula Filová, Marko Gloginjić, Jakub Lüley, Željko Mravik, Srdjan Petrović, Ondřej Štastný and Branislav Vrban*  
**Neutron Field Spectral Indices Investigation Using Activation Foils Modified by Ion Implantation and Vapor Deposition**

*Srdjan Petrović*

**Application of the Crystal Rainbow Effect as a Basis for a Nuclear Analytical Method**

*Acknowledgment. This scientific conference was supported by the Slovak Research Development Agency within the project No. APVV VV-20-300 and by Nureco o. z.*

SESSION B1 **5<sup>th</sup> international workshop:**

*Current Successes in the Photoemission and Electron Microscopy I.* 17:00

*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).*



EUROPEAN UNION  
European Structural and Investment Funds  
Operational Programme Research,  
Development and Education



*Martin Gmitra, Denis Kochan, Marko Milivojević and Karol Szalowski*

**Charge Density Wave Proximity Effects on Spin-Orbit and Exchange Coupling in Graphene on 1T-TaS<sub>2</sub> Monolayer**

*Jozef Haniš and Martin Gmitra*

**Quasiparticle Interference in Superconducting Layered Misfit Compound (LaSe)<sub>1.14</sub>NbSe<sub>2</sub>**

*Ondřej Šipr, Sergey Mankovsky and Hubert Ebert*

**Anomalous Hall Effect and Spin Hall Effect for a Disordered Host: Breakdown of Traditional Paradigm**

*Pavel Calta, Jaroslav Bruncko, Marie Netrvalová, Rostislav Medlín and Ján Minár*  
**KrF Excimer Laser 248 nm Treatment of Silicon Thin Films: Investigation of Microstructure and Optical Properties**

*Karol Hricovini, Maria Christine Richter, Olivier Heckmann, Jean-Michel Mariot, Janusz Sadowski, Thiagarajan Balasubramanian, Mats Leandersson, Johan Adell, Craig Polley, Ján Minár and Laurent Nicolai*

**Electronic Structure of Vicinal Surfaces Studied by ARPES: Case of InAs(111)**

*M. C. Richter, O. Heckmann, K. Hricovini, M. De Feudis, J. Kotakoski and V. Skakalova*  
**Quantum Centres in Diamond**

SHORT BREAK

*Laxman Nagi Reddy, Maria Christine Richter, Olivier Heckmann, Jean Zaraket, Mauro Fanciulli, Waly Ndiaye, Saleem Ayaz Khan, Laurent Nicolai, Natalia Olszowska, Marcin Rosmus, Weimin Wang, Ján Minár and Karol Hricovini*

**Synchrotron-Based ARPES Studies of Hf (0001) Single Crystal**

*Miroslav Cieslar, Rostislav Králík, Barbora Křivská, Lucia Bajtošová, Olexandr Grydin, Mykhailo Stolbchenko and Mirko Schaper*

**Al<sub>3</sub>(Zr,Sc) Particles in Twin-Roll Cast Al-Li Alloy**

*Lucia Bajtošová, Rostislav Králík, Barbora Křivská, Jan Hanuš and Miroslav Cieslar*  
**Microstructure of Ni@Ti Core-Shell Nanoparticles**

*Barbora Křivská, Miroslav Cieslar, Rostislav Králík, Lucia Bajtošová, Olexandr Grydin, Mykhailo Stolbchenko and Mirko Schaper*

**Influence of Casting Methods on Microstructure Development of Al-Li Alloy During Constrained Groove Pressing**

*L. Nicolai, J. Minár, M. C. Richter, O. Heckmann, M. Fanciulli, L. Nagi Reddy, G. Bell, R. Haria, J.-M. Mariot and K. Hricovini*

**Band Dispersion within Pristine InBi Crystal**

*P. Chaudhary, K. K. Dubey, G. K. Shukla, S. Singh, S. Sadhukhan, S. Kanungo, A. K. Jena, S.-C. Lee, S. Bhattacharjee, Ján Minár and S. W. D'Souza*

**Role of Chemical Disorder in Tuning the Weyl Points in Vanadium Doped Co<sub>2</sub>TiSn**

*Juraj Paulech, Justín Murín, Vladimír Kutiš, Gabriel Gálik and Michal Miloslav Uličný*  
**Behaviour of Coolant in VVER-440 Under Major Outage Conditions**

*Jarmila Degmová, Vladimír Kršjak and Stanislav Sojak*  
**Non-Destructive Testing Applied on Model Nuclear Power Plant's structural Materials -  
First Approach for Magnetic Barkhausen Noise Technique**

*Marko Erich, Marko Gloginjić, Željko Mravik, Branislav Vrban, Štefan Čerba, Jakub Lüley,  
Vladimír Nečas, Vendula Filová, Karel Katovský, Ondrej Štastný and Srdjan Petrović*  
**Dependence of the 6H - SiC Induced Amorphization on the Ion Beam Implanted Fluence**

*Ivan Procházka, Josef Blažej, Vít Sopko, Roberta Bimbová, Jan Kodet, Jan Břínek, Matěj  
Stavinoha and Bruno Sopko*  
**Resistance to Gamma Radiation Evaluation of a Picosecond Event Timer for Solid State  
Photon Counting in Space**

*Bohumír Zaťko, Ladislav Hrubčín, Pavol Boháček, Yuriy Borisovič Gurov, Sergej Vladimirovič  
Rozov, Sergej Alexandrovič Evseev, Maxim Viktorovič Bulavin, Nikolaj Ivanovič Zamiatin,  
Yurij Andrejevič Kopylov, Mária Sekáčová and Eva Kováčová*  
**Spectrometric Performance of 4H-SiC Detectors after Neutron Irradiation**

*Robert Hinca and Branislav Stribrnsky*  
**Independent Ad-Hoc Radiation Monitoring of Obsolete Waste Water Discharge Channel  
Near Jaslovske Bohunice Nuclear Facility**

*Katarína Sedlačková, Bohumír Zaťko and Vladimír Nečas*  
**Spectrometry of Electron Irradiated CdTe Schottky-Barrier Semiconductor Detectors  
before Polarization Onset**

*Jakub Lüley, Branislav Vrban, Štefan Čerba and Vladimír Nečas*  
**Coupling of the TRITON and FEMAXI6 Code**

*Andrea Šagátová, Andrej Novák, Eva Kováčová, Oleg Riabukhin, Soňa Kotorová  
and Bohumír Zaťko*  
**Radiation-Degraded SI GaAs Detectors and Their Metallization**

*Martin Petriska, Stanislav Sojak, Vladimír Kršjak, Jarmila Degmová and Vladimír Slugeň*  
**Combined Triple Coincidence Positron Lifetime and Coincidence Doppler Broadening  
Measurement Setup**

*Soňa Kotorová, Andrea Šagátová, Gabriel Vanko, Pavol Boháček and Bohumír Zaťko*  
**Effect of Thermal Annealing on 4H-SiC Radiation Detector**

*Branislav Vrban, Jakub Lüley, Štefan Čerba, Vendula Filová and Vladimír Nečas*  
**Nuclear Data Induced Uncertainty in the ALLEGRO-MOX Burnup Calculation**

*Norbert Gál, Bohumír Zaňko, Pavol Boháček and Eva Kováčová*  
**Detection Properties of Semi-Insulating GaAs Radiation Detectors at Low Temperatures**

SESSION C2 *New Materials and Structures, Nanostructures and Thin Films, Their Analysis and Specific Applications, Applied Optics, Sensorics I.* 18:30

---

*Jana Šimeg Veterníková, Jarmila Degmová, Stanislav Sojak, Milan Pavúk and Vladimír Slugeň*  
**Nano-Hardness Mapping of Austenitic Steel 316L with Different Surface Treatments**

*Dávid Košovský, Marcel Miglierini, Milan Pavúk and Tomáš Kmječ*  
**Surface Features of Binary Fe<sub>100-x</sub>Cr<sub>x</sub> (1 ≤ x ≤ 50) Alloys**

*Jaroslava Škriniarová, Robert Andok, Magdaléna Kadlečiková and Juraj Nevřela*  
**Problems Concerning the Demolding Process of Nano Imprint Lithography**

*Stefan Luby and Martina Lubyova*  
**Nanoparticle Supercrystals – a Path to New Phenomena and Devices in the Nanoworld**

*Robert Andok, Katia Vutova, Anna Konecnikova, Mario Ritomsky and Ivan Kostic*  
**Study of Lithographic Parameters for the Trilayer Resist Systems in Electron Beam Lithography**

*Šimon Berta, Vladimír Goga, Ladislav Šarkán and Justín Murín*  
**Active Vibration Damping of Aluminum Beam Using Piezoelectric Actuator**

*Daniel George Grey, Marcel Miglierini, Július Dekan and Peter Švec Sr.*  
**Fe(Co)-Sn-B Metallic Glasses Investigated by Mössbauer Spectrometry**

*Štefan Hardoň, Jozef Kúdelčík, Anton Baran and Martin Brandt*  
**Effect of Two Concentrations SiO<sub>2</sub> Nanoparticles on Molecular Mobility and Dielectric Response of Single Component Resin Based on Polyesterimid**

*Marek Veveričík, Peter Bury and František Černobila*  
**Effect of Doping Process on Structural Properties of Liquid Crystals**

*Peter Vrábek and Jozef Kravčák*  
**The Analysis of Magnetic Flux in Single and Couple Magnet Systems**

*Tomáš Váry, Vojtech Nádaždy and Juraj Chlpík*  
**Interplay of Charge-Transfer Exciton and Effective Band Gap in Organic Donor-Acceptor Blends**

*Juraj Chlpík, Soňa Kováčová, Ľuboš Podlucký, Martin Ziman, Martin Feiler, Soňa Kotorová, Jaroslav Kováč Jr., Tomáš Váry and Július Cirák*

**Total Internal Reflection Ellipsometry of Au/SiO<sub>x</sub>Ny Waveguide Structures for Sensor Applications**

*Dana Seyringer, Stanislava Serečunová, Peter Gašo, Dušan Pudiš, Heinz Seyringer, František Uherek, Fadi Dohnal and Johann Zehetner*

**Design of 16-Channel, 100-GHz Multimode Polymer-Based AWG**

*Stanislava Serecunova, Dana Seyringer, Dusan Pudis, Tomas Mizera, Frantisek Uherek and Heinz Seyringer*

**Optimization of 3D 1×4 Multimode Interference Splitter Based on Polymer Material Platform**

*Norbert Tarjányi and Marián Janek*

**Birefringent Material-Based Optical Scales**

*Michal Miloslav Uličný and Vladimír Kutiš*

**Three-Dimensional CFD Modelling and Simulation of a PEM Fuel Cells**

WELCOME PARTY (HOTEL RESTAURANT)

20:00-24:00

**Thursday, June 23, 2022**

BREAKFAST

07:00

SESSION B2 ***International workshop:***

***Current Successes in the Photoemission and Electron Microscopy II.*** 08:30

***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).



EUROPEAN UNION  
European Structural and Investment Funds  
Operational Programme Research,  
Development and Education



*Petr Novák and Joe Briscoe*

**Controlling the Conductivity of ZnO Films by Oxide Conditions for ZnO Nanorod-Based Devices**

*Štěpánka Jansová, Zdeněk Jansa, Lucie Nedvědová, Rostislav Medlín and Ján Minár*

**Identification of Asbestos Fibres from Soil Sediments**

*Zdeněk Jansa, Pavol Šutta, Lucie Nedvědová and Ján Minár*

**The Effect of Transition Metal Dopants on the Physical Properties of Perovskites Studied by XRD Analysis**

*Anna Benediktová, Dagmar Jandová, Jan Očenášek and Ján Minár*

**Study of Dislocation Interactions in Cantor Alloy. Comparison between Molecular Dynamics Modeling and Observation with Transmission Electron Microscope**

*Veronika Vavruňková, Štefan Morávka, Jitka Horská and Ján Minár*

**Nanoindentation and Its Application on Gear Teeth**

*Olena Tkach, Katerina Medjanik, Olena Fedchenko, Sergey Babenkov, Hans-Joachim Elmers and Gerd Schönhense*

**High-Energy Time-of-Flight Momentum Microscope Development**

SESSION A3 *Physical Properties and Structural Aspects of Solid Materials,  
Biophysics and Interdisciplinary Physics I.*

---

08:30

*Milan Pavúk and Marcel Bruno Miglierini*

**Uncertainty of Height Measurements in Atomic Force Microscopy**

*Jozef Sitek, Katarína Sedlačková, Beata Butvinová, Július Dekan and Milan Pavúk*

**Structural and Magnetic Properties of Nanocrystalline FeSiBPCu Alloy**

*Jana Horniaková, Simeon Samuhel, Jozef Onufer, Peter Duranka, Mária Kládiová and Ján Ziman*

**Influence of Temperature on Domain Wall Geometry in Bistable Magnetic Microwire**

*Alen Fos, Peter Švec Sr., Irena Janotová, Dušan Janičkovič, Beata Butvinová, Marek Búran, Anna Kyritsi, Nikolaos Konstantinidis, Jozef Marcin, Ivan Škorvánek and Patrik Novák*

**Microstructure and Magnetic Properties of Rapidly Quenched Fe-Sn-B Based Alloys**

*Libor Ďuriška, Ivona Černíčková, Peter Švec, Peter Švec, Sr., Marek Mihalkovič, Pavol Priputen and Jozef Janovec*

**Defects in Atomic Structure of Decagonal Quasicrystalline Approximants**

*Veronika Turiničová, Pavol Ďurina, Martin Moško and Maroš Gregor*

**Measurement of Trapped Electric Charge in Dielectric Biomaterials Charged in Scanning Electron Microscope**

COFFEE BREAK

10:00

SESSION B3 **International workshop:**  
**Current Successes in the Photoemission and Electron Microscopy III.** 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).



EUROPEAN UNION  
European Structural and Investment Funds  
Operational Programme Research,  
Development and Education



*G. K. Shukla and Sanjay Singh*

**Atomic Disorder and Berry Phase Driven Anomalous Hall Effect in a Co-Based Heusler Compounds**

*Rostislav Medlín, Marek Václavík, Michal Dudák, Vladimír Novák, František Štěpánek, Miloš Marek and Petr Kočí*

**TEM of Catalytic Materials**

*Ondřej Caha, Juraj Krempaský and Gunther Springholz*

**Electric Field Induced Displacements of Individual Atoms in Ferroelectric GeTe Thin Films Studied Using Standing Wave X-Ray Fluorescence**

*Kimmo Mustonen, Christoph Hofer, Peter Kotrusz, Martin Hulman, Karol Hricovini, Christine Richter and Viera Skákalová*

**Simple Synthetic Route Toward Two-Dimensional Metal Iodides**

*Procopios Constantinou, Taylor Stock, Eleanor Crane, Alexander Kölker, Marcel van Loon, Juerong Li, Sarah Fearn, Henric Bornemann, Nicolò D'Anna, Andrew Fisher, Vladimir N. Strocov, Gabriel Aeppli, Neil Curson and Steven Schofield*

**Electronic Structure of Ultra-Dense, Two-Dimensional Dopant  $\delta$ -Layers in Silicon**

*Fatima Alarab, Karol Hricovini, Christine Richter, Jan Minar and Vladimir N. Strocov*

**Origin of the In-Gap States in the 3d Perovskite Oxide SrTiO<sub>3</sub> Doped with Ni**

*Sarith Sasi, Palaniappan Subramanian, Sunil Wilfred D'Souza, Laurent Nicolai, Alex Schechtera and Ján Minár*

**X-ray Photoelectron Spectroscopy Study of Nanocatalyst Coated Gas Diffusion Electrodes for Dimethyl Ether Fuel Cell Application**

*Sarith Sasi, Palaniappan Subramanian, Sunil Wilfred D'Souza, Laurent Nicolai, Alex Schechtera and Ján Minár*

**X-ray Photoelectron Spectroscopy Study of Nanocatalyst Coated Gas Diffusion Electrodes for Dimethyl Ether Fuel Cell Application**

*Jindřich Musil and Šimon Kos*

**The Use of Strongly Non-Equilibrium Processes in Magnetron Sputtering of Hard Protective Films**



*Ivona Černíčková, Marek Mihalkovič, Libor Ďuriška, Peter Švec, Peter Švec Sr. and Jozef Janovec*

**Atomic Models of  $\epsilon_n$  Structural Variants - Overview**

*Justín Murín, Vladimír Goga, Juraj Hrabovský, Juraj Paulech, Gabriel Gálik, Ladislav Šarkan and Vladimír Kutíš*

**Structural Analysis of New Dampers Made of Nylon Springs**

*Vladimír Jančárik, Peter Palček and Karol Hilko*

**Change in Magnetic Properties of Low Carbon Steel after Heat Treatment**

*Peter Kollár, Denisa Olešáková, Robert Maciaszek, Martin Tkáč, Ján Fúzer and Zuzana Birčáková*

**Influence of Inner Demagnetizing Field on Permeability of Iron Compacted Powder**

*Ol'ga Fričová and Mária Hutníková*

**Effects of Plasticizer on Viscoelastic Properties of Biodegradable Polymer Blends of Poly (Butylene-Adipate-Co-Terephthalate) with Thermoplastic Starch**

*Jaroslav Hornak, Pavel Trnka, Pavel Prosr, Ondrej Michal and Jiri Kopriva*

**The Behavior of Cold-Curing Resin after Thermal and UV Radiation Exposures**

*Olha Vinnik, Róbert Tarasenko, Liliia Kotvytska, Katarína Zakuťanská, Natália Tomašovičová, Martin Orendáč and Alžbeta Orendáčová*

**The Study of Lattice Dynamics in Dimerized Quantum Magnets with Chain-Like Crystal Structure**

*Marián Palcut, Martina Kaľavská, Libor Ďuriška, Ivona Černíčková, Marek Adamech and Jozef Janovec*

**Corrosion Behavior of Zn-Mg and Zn-Mg-Y Alloys**

*Magdaléna Kadlečíková, Karol Jesenák, Eubomír Vančo, Jaroslava Škriniarová, Michal Hubeňák and Juraj Breza*

**Carbon Nanowalls on Porous Forms of SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>**

*Michael Barutiak, Adriana Zelenáková, Pavol Hrubovčák, Euboš Nagy, Jaroslava Szűcsová, Eva Beňová and Vladimír Zelenák*

**Comparison of Magnetic Properties of Magnetic Beads for Magnetic Separation**

*Katia Vutova, Vania Vassileva, Ravendran Ratheesh, Raghu C Reddy, Arbind Kumar and Maria Naplatanova*

**Influence of Process Parameters on Refining Efficiency and Microstructure of Electron Beam Treated Hafnium Sponge**

*Trung-Phuc Vo, Olena Tkach, Katerina Medjanik, Olena Fedchenko, Hans-Joachim Elmers, Gerd Schönhense and Ján Minár*

**Circular Dichroism in Angle-Resolved Photoemission from Core-Level Emission of W(110)**

*Ondrej Michal, Vaclav Mentlik and Jaroslav Hornak*

**Influence of Prolonged Mixing of Silicon Dioxide Nanoparticles on the Electrical Properties of Resin Nanocomposites**

*Marko Gloginjić, Marko Erich, Vladimir A. Skuratov, Nikita S. Kirilkin, Mike Kokkoris, Stjepko Fazinić, Marko Karlušić and Srdjan Petrović*

**Ion Channeling Implantation Induced MgF<sub>2</sub> Crystal Damage through the "Eye" of Photoluminescence Spectroscopy**

SESSION C4 *Physical Properties and Structural Aspects of Solid Materials, Biophysics and Interdisciplinary Physics III.*

---

10:30

*Luboš Nagy, Adriana Zeleňáková, Jaroslava Szűcssová, Natalia Mielnik and Pavol Hrubovčák*  
**Characterization of Cobalt Ferrite Magnetic Nanoparticles for Magnetic Hyperthermia Application**

*Maksym Lisnichuk, Vladimír Girman, Daria Yudina, Andrej Baldovský, Pavol Sovák and Jozef Bednarčík*

**Structural Investigation of Mechanically Alloyed Co-Fe-Ta-B-Mo Alloy**

*Lenka Hašková, Elemír Ušák and Mariana Ušáková*

**Sophisticated Software Analysis of Magnetic Quantities Obtained by Magnetic Adaptive Testing Method**

*Liliia Kotvytska, Róbert Tarasenko, Oleksiy Lyutakov, Mariia Erzina, Natalia Tomašovičová, Olha Vinnik, Martin Orendáč and Alžbeta Orendáčová*

**Physical Properties of Metallo-Organic Zeolitic Imidazolate Frameworks**

*Simeon Samuhel, Jana Horniaková, Jozef Onufer, Peter Duranka, Mária Kladiťová and Ján Ziman*

**Influence of Temperature on Domain Wall Dynamics in Rapidly-Changing Magnetic Field**

*Karol Hilko, Daniel Škarbala and Vladimír Jančárik*

**Influence of Measurement Condition on Magnetic Parameters of Construction Steel**

*Vladimír Girman, Vladimír Kolesár, Maksym Lisnichuk, Daria Yudina, Andrej Baldovský, Pavol Sovák and Jozef Bednarčík*

**Thermal Stability of Fe-Based BMGs Investigated by High-Energy X-ray Scattering**

*Beata Butvinová, Peter Švec Sr., Alen Fos, Irena Janotová, Ján Škoviera and Igor Matko*  
**Effect of Short Annealing on Soft Magnetic Properties of Fe(Co)SnBP Alloys**

*Robert Maciaszek, Peter Kollár, Martin Tkáč, Tetiana Rudeichuk, Mária Fáberová and Róbert Džunda*

**Improved Soft Magnetic Properties of Iron Powder Compacts Prepared by Mechanical Treatment of Powder Particles**

*Tetiana Rudeichuk, Denisa Olekšáková, Robert Maciaszek, Martin Tkáč and Peter Kollár*  
**Preparation and Experimental Study of Properties of Magnetic Soft Composite Materials**

*Natalia Šmídová, Olga Fričová, Ivan Chodák and Mária Koval'aková*  
**Structural Characterization of Poly(Butylene-Adipate-co-Terephthalate) (PBAT) / Thermoplastic Starch Blends**

*Martin Tkáč, František Onderko, Zuzana Birčáková, Samuel Dobák, Peter Kollár, Mária Fáberová, Ján Füzser, Radovan Bureš and Juraj Szabó*  
**Energy Losses in Fe Based SMCs Influenced by Ferrite Content**

*Adriana Zeleňáková, Jaroslava Szűcssová, Veronika Huntošová, Pavol Hrubovčák and Vladimír Zeleňák*  
**Magnetic Properties and Cytotoxicity Study of Iron Oxide Nanoparticles with Gold Layer**

*Jozef Sláma, Vladimír Jančárik and Martin Šoka*  
**Contribution to Magnetic Properties of Be-Substituted  $\text{Ni}_{0.3}\text{Zn}_{0.7}\text{Fe}_2\text{O}_4$  Ferrite**

*Stanislav Jurečka*  
**Model of Electric Charge Transfer in Semiconductor/Electrolyte Interface Based on Drift-Diffusion Equations**

LUNCH 12:00 -14:00

SOCIAL PROGRAMME (FREE PROGRAM) 14:00

DINNER AND FRIENDSHIP PARTY (GRILL PARTY)  
IN VATRA CLUB AND OUTDOOR TERRACE 19:00 - 23:00

## **Friday, June 24, 2022**

BREAKFAST	07:00
CHECK OUT AT THE HOTEL RECEPTION	08:00-11:00
MEETING OF SOLVERS OF THE PROJECT CEDAMNF, DISCUSSIONS WITH FOREIGN PARTNERS ON COOPERATION IN THE OP JAK PROGRAM	08:00
PLENARY SESSION A4 <i>New Materials and Structures, Nanostructures and Thin Films, Their Analysis and Specific Applications, Applied Optics, Sensorics II.</i>	09:00
<hr/>	
<i>Katarína Viskupová, Branislav Grančič, Tomáš Roch, Leonid Satrapinsky, Martin Truchlý, Marián Mikula, Viktor Šroba, Pavol Ďurina and Peter Kúš</i> <b>Effect of Reflected Ar Neutrals on Tantalum Diboride Coatings Prepared by DC Magnetron Sputtering</b>	
<i>Magdaléna Poláčková, Tomáš Roch and Maroš Gregor</i> <b>Enhancement of Critical Current Density in Superconductor – Ferromagnet Multilayers</b>	
<i>Peter Švec, Irena Janotová, Dušan Janičkovič, Leonardo Viana Dias, Ivan Škorvánek and Peter Švec Sr.</i> <b>Survey of Routes for Formation of L1<sub>0</sub> Phase in Fe-Ni Based Alloys</b>	
<i>Peter Cendula, Franky E. Bedoya-Lora and Rajiv Prabhakar</i> <b>Semilogarithmic Current-Voltage Relationship of Photoelectrodes for Water Splitting</b>	
CONCLUDING REMARKS (CONGRESS HALL)	10:00
COFFEE BREAK	10:05
LUNCH	11:30
DEPARTURE	13:00