

# MULTISCALE PHENOMENA IN CONDENSED MATTER - MULTIS 2022 – SCHEDULE OF THE CONFERENCE

## OPENING SESSION, MONDAY 27.06, 9:00-10:10

09:00-09:10 **Opening of the conference**

09:10-10:10 Bridget M. Murphy “Ultra-fast to slow dynamics at liquid interfaces investigated with X-rays”

## SESSION 1, MONDAY 27.06, 10:10-11:00

10:10-10:40 Kazuya Saito “Small spin clusters mimicking a temperature induced phase transition”

10:40-11:00 Karol Szałowski “Electric field-controlled spin state in [7]uthrene and [8]uthrene molecule: computational study”

*BREAK, 11:00-11:30*

## SESSION 2, MONDAY 27.06, 11:30-13:10

11:30-12:10 Sabu Thomas “Circular economy: New opportunities in sustainable soft nano materials and polymer bio-nanocomposites”

12:10-12:30 Stanisław Urban “Dielectric studies of systems influenced by the ionic conductivity”

12:30-12:50 Sebastian Pawlus “Is adding a large atom important for the relaxation dynamics of monohydroxy alcohols?”

12:50-13:10 Daniele Sonaglioni “Fast differential scanning calorimetry: new perspectives in data reduction and applications to organic samples”

*BREAK, 13:10-14:10*

## SESSION 3, MONDAY 27.06, 14:10-16:00

14:10-14:50 Szymon Chorąży “Molecular magnetism meets optical thermometry in heterometallic systems linking lanthanide and transition metal complexes”

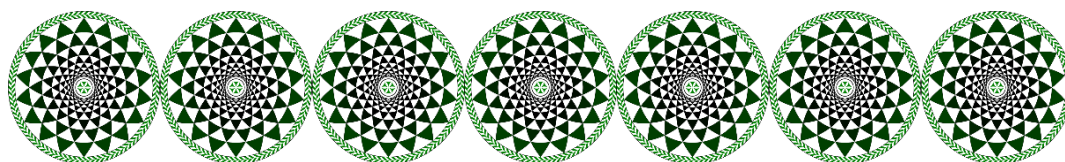
14:50-15:20 Sylvie Ferlay “Assembling functional molecular crystals”

- 15:20-15:40 Magdalena Ceglarska “Relaxation processes in a single crystal of  $\text{Co}(\text{NCS})_2(4\text{-methoxypyridine})_2$  spin chain”
- 15:40-16:00 Petro Danylchenko “Rotational Magnetocaloric Effect in  $\text{Ni}(\text{en})(\text{H}_2\text{O})_4 \cdot 2\text{H}_2\text{O}$ ”

**BREAK, 16:00-16:10**

**FLASH TALK SESSION, MONDAY 27.06, 16:10-16:50**

- 16:10-16:15 Julia Chudzik “Formation of crosslinked functional poly(4-vinylpyridine)- $\text{CoBr}_2$  in both static and dynamic conditions”
- 16:15-16:20 Paweł Dąbczyński “Dendrites formation on poly(methylmetacrylate) surface reactively sputtered with cesium ion beam”
- 16:20-16:25 Juliusz Chojenka “Magnetism and transport studies of thin iron films deposited on anodized titanium oxides”
- 16:25-16:30 Wojciech Sas “Bilayers and double-shell nanotubes of Prussian blue and its Cr analog – the synthesis and magnetic properties”
- 16:30-16:35 Svetlana Yefimova “UV-light activated  $(\text{Gd}, \text{Y})\text{VO}_4:\text{Eu}^{3+}$  nanoparticles as Nano Radio Enhancers”
- 16:35-16:40 Vladyslav Seminko “Luminescent ceria nanoparticles with controlled ROS scavenging activity”
- 16:40-16:45 Svetlana Pastukh “Investigation of electronic and magnetic properties of copper pyrophosphate”
- 16:45-16:50 Mohammad S. Shakeri “The effect of solvent on oxidation behavior of copper during laser irradiation of suspension, a reactive bond molecular dynamics study”



#### **SESSION 4, TUESDAY 28.06, 09:00-10:30**

- 09:00-09:40 Jens Müller “Fluctuation (noise) spectroscopy as a tool to study the dynamics of multi-scale systems in condensed matter”
- 09:40-10:10 Matúš Mihalik “Magnetism in  $\text{RMn}_{1-x}\text{Fe}_x\text{O}_3$  orthorhombically distorted perovskite compounds”
- 10:10-10:30 Yasuhiro Nakazawa “Thermodynamic properties around the metal-insulator spin phase boundary in the dimer-Mott organic compounds”

#### ***BREAK, 10:30-11:00***

#### **SESSION 5, TUESDAY 28.06, 11:00-12:10**

- 11:00-11:30 James Pallister “Limit shape phase transitions: a merger of arctic circles”
- 11:30-11:50 Mária Zentkova “The hole doped perovskite manganites  $\text{La}_{0.80}\text{Ag}_{0.15}\text{MnO}_3$  for bioapplications”
- 11:50-12:10 Mykhailo Chaika “Surface origin of laser induced white light emission”

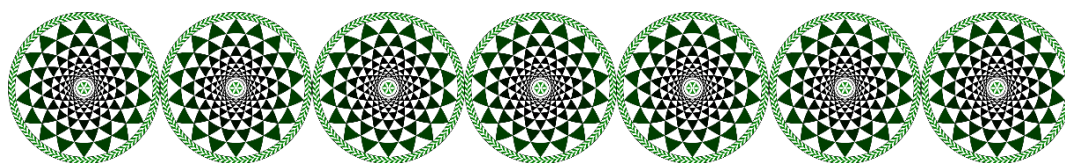
#### **POSTER SESSION I, TUESDAY 28.06, 12:10-13:10**

#### ***BREAK, 13:10-14:10***

#### **SESSION 6, TUESDAY 28.06, 14:10-15:40**

- 14:10-14:50 Kristiaan Neyts “3D liquid crystal structures determined by surface alignment”
- 14:50-15:20 Simone S. Napolitano “Slow dynamics facilitates equilibration of liquids and glasses”
- 15:20-15:40 Joana F. C. Silva “Intermolecular association in co-amorphous systems and their relaxation to co-crystals”

#### **POSTER SESSION II, TUESDAY 28.06, 15:40-16:40**



## **SESSION 7, WEDNESDAY 29.06, 09:00-11:10**

- 09:00-09:40 Mark R. Johnson “Neutrons to study multiscale phenomena in energy materials”
- 09:40-10:10 Alexandre Ivanov “Atomic dynamics in condensed matter studied by neutron scattering with crystal spectrometers”
- 10:10-10:30 Oleksandr Tomchuk “Cluster structure and cluster-cluster interaction in nanodiamond aqueous sols by small-angle scattering”
- 10:30-10:50 Oleksandr P. Artykulnyi “Structural studies of surfactant-polymer associations in bulk and at interfaces”
- 10:50-11:10 Dmytro Soloviov “Functional lipid pairs as building blocks of phase-separated membranes”

***BREAK, 11:10-11:30***

***BEST POSTER COMPETITION VOTING TIME (11:10-11:25)***

## **SESSION 8, WEDNESDAY 29.06, 11:30-13:10**

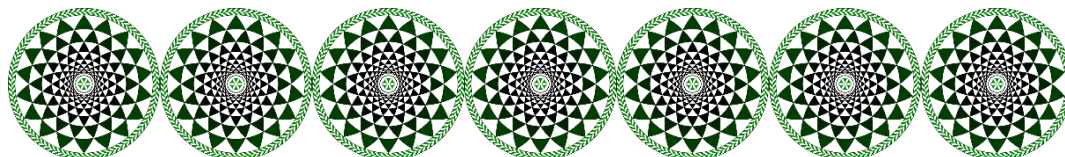
- 11:30-12:10 Svetoslav Stankov “Lattice dynamics of thin europium oxide films: from the ferromagnetic semiconductor EuO to the high-k dielectric  $\text{Eu}_2\text{O}_3$ ”
- 12:10-12:30 Konrad J. Kapcia “Modeling of ultrafast magnetization decrease in cobalt multilayer system under soft X-ray radiation”
- 12:30-12:50 Sucharita Niyogi “Mechanical properties and pore size distribution in athermal porous glasses”
- 12:50-13:10 Wojciech Tomczyk “Computer simulations of mesophases formed by bent-shaped molecules with excluded-volume type interactions”

***BREAK, 13:10-14:10***

## **SESSION 9, WEDNESDAY 29.06, 14:10-16:20**

- 14:10-14:50 Joulia Larionova “Prussian blue type nano-objects: new opportunities for old materials”
- 14:50-15:20 Paul Goddard “Scattering from magnetic monopoles and antiferromagnetic domain manipulation in a frustrated pyrochlore iridate”

- 15:20-15:40 Arkadiusz Zarzycki “Porous Ti/TiO<sub>x</sub>/Fe magnetic junction and its magnetotransport properties”
- 15:40-16:00 Mateusz A. Gala “Search for dependency between Verwey and Curie temperatures in magnetite monocrystals doped with Mn, Zn, Al and Ti”
- 16:00-16:20 Benjamin Klebel-Knobloch “Evolution of the Hall-coefficient, dc-resistivity and Fermi-surface in Cuprates”



### **SESSION 10, THURSDAY 30.06, 09:00-11:10**

- 09:00-09:40 Ewa Chrzumnicka “Liquid crystals: smart molecular systems”
- 09:40-10:10 Daniele Cangialosi “Multiple mechanisms for equilibrium recovery in glasses”
- 10:10-10:30 Anna Drzewicz “Insight into complex crystallization mechanisms of chiral smectogenic liquid crystal”
- 10:30-10:50 Katarzyna Chat “Influence of stereoregularity on the glass transition dynamics under high-pressure conditions and geometrical nanoconfinement”
- 10:50-11:10 Pavlo Baloh “Influence of nanoclusters concentration on low-temperature properties of As-S system”

***BREAK, 11:10-13:30***

### **SESSION 11, THURSDAY 30.06, 11:30-13:10**

- 11:30-12:00 Silvia Pizzanelli “The state of water adsorbed on a MOF: an NMR study”
- 12:00-12:30 Elisa Carignani “Lead halide perovskites for energy applications: structural complexity and dynamics revealed by solid state NMR”
- 12:30-12:50 Magdalena Goździuk “Nanovolumes of soybean oil-based biopolymer matrices to the construction of biosensors for trace water pollutants”
- 12:50-13:10 Francesca Nardelli “Influence of sulfur-curing conditions on the dynamics and crosslinking of rubber networks: a Time-Domain NMR study”

***BREAK, 13:10-14:10***

**SESSION 12, THURSDAY 30.06, 14:10-15:50**

- 14:10-14:40 Aline Leon “Water electrolysis for hydrogen production – focus on high-temperature steam electrolysis using solid oxide cells”
- 14:40-15:10 Andrew Jackson “Self-assembly in deep eutectic solvents: From surfactant aggregation to protein folding”
- 15:10-15:30 Katarzyna Lenczewska “Dependence of structural and optical properties on the type of phase structure in the luminescent  $\text{BiVO}_4:\text{Tm}^{3+}$ ”
- 15:30-15:50 Marcin Perzanowski “Magnetization reversal mechanism in exchange-biased spring-like thin-film composite”

***BREAK, 15:50-16:10***

***BEST TALK COMPETITION VOTING TIME (15:50-16:05)***

- 16:10 **Closing of the conference**

## POSTER SESSION – PART I, TUESDAY 28.06, 12:10-13:10

1. Shintaro Akagi “Crystal structures and magnetic studies of two-types of Ni-W octacyanide bimetal assemblies”
2. Maksym S. Barabashko “Kinetics of the Thermal Decomposition of thermally reduced graphene oxide (TRGO)”
3. Aleksandra Deptuch “Kinetics of cold crystallization of the chiral fluorinated smectogenic 3F5HPhH6 compound”
4. Akhmad F. Fadilla “Synthesis of Lambda-type Trititanium pentoxide using a block copolymer”
- 5.
6. Yuliia Horbatenko “Thermal conductivity of bulk and nanostructured materials in modern concepts framework”
7. Sara El Houbbadi, Andrii Fedorchuk “Multifunctional ordered mesoporous silica-based materials for nanotechnological applications”
8. Diana Hurova “Mean squared displacement of molecules from lattice sites in the orientationally ordered phase of  $^{15}\text{N}_2$ ”
9. Greta Inkrataitė “Synthesis and investigation of cerium and boron and/or magnesium doped YAG and LuAG for high quality scintillators application”
10. Anna Karachevtseva “Influence of thermoactivate contribution on isochoric thermalconductivity of tetrafluorethane”
11. Agne Kizalaitė “Synthesis of manganese whitlockite via dissolution-precipitation process”
- 12.
13. Anatolii Nagorny “Structural investigation of ferrofluids by small-angle neutron scattering”
14. Shuntaro Nagashima “Observation of surface magnetic domain on magnetic thin films of hexacyanochromium-chromium magnetic film”
15. Anna Nykiel “Structure and magnetic properties of FeCo nanowires”
16. Aleksandra Pacanowska “Switchable composite materials based on polymers and chain-like molecular magnet”
17. Andrius Pakalniskis “Investigation of crystal structure and doping driven phase transitions in  $\text{Lu}_{(1-x)}\text{Sc}_x\text{FeO}_3$  System”

18. Oliwia Polit “Influence of particles-solvent interactions on composite particles formation during pulsed laser irradiation in liquid process”
19. Stanisław A. Różański “Influence of finite size effects and surface interactions on the molecular and collective dynamics in confined liquid crystals”
20. Volodymyr Sagan “Phase V(T) transformations in freons of the ethane series under isochoric conditions”
21. Riku Seiki “One-step metal-semiconductor phase transition observed in nanosize tetratitanium heptoxide”
22. Vladyslav Seminko “Luminescent ceria nanoparticles with controlled ROS scavenging activity”
23. Taro Yamamoto “Phase behaviors of liquid crystal 8CB under steady shear flow”
24. Svetlana Yefimova “UV-light activated (Gd,Y)VO<sub>4</sub>:Eu<sup>3+</sup> nanoparticles as nano radio enhancers”



## POSTER SESSION – PART II, TUESDAY 28.06, 15:40-16:40

25. Yousra Bahjou “Synthesis, crystal structures of Cu(II), Ni(II), Co(II) and Cd(II) coordination complexes constructed by tetrazole and bi-pyrazole CN junction entities”
26. Julia Bujakowska “High magnetic anisotropy induced by unusual coordination in a pentanuclear star-like Ni<sub>4</sub>Fe molecule”
27. Karol Capała “Inertial Lévy flights in bounded domains”
28. Giovana de Paula Costa “Norfloxacin-picolinic acid coamorphous/cocrystal: Diffractometric study of a cocrystallization process through amorphous phase”
29. Dominik Czernia “Effects of plasma irradiation on the three-dimensional cyanide-bridged network based on the Nb (IV) and Mn (II) ions”
30. Jacek Gatlik “Effect of nonzero temperature on the process of penetration of the potential barrier through the kink”
31. Patricia O. Ferreira “Menthol-valsartan low transition temperature mixtures (LTTMs): a thermoanalytical study”
32. Agnieszka Karczmarzka, Michał Adamek “Carbon structures fabricated by a versatile hydrothermal method: controllable synthesis and preliminary material characterization”
33. Dovydas Karoblis “Investigation of structural, morphological and magnetic properties of Bi<sub>1-x</sub>Gd<sub>x</sub>Fe<sub>0.85</sub>Mn<sub>0.15</sub>O<sub>3</sub> solid solutions prepared via sol-gel method”
34. Liliia A. Kotvytska “Thermodynamic studies of the zeolitic imidazolate frameworks”
35. Mateusz Kuniej “Orbach-like which-way spin dephasing in self-assembled and gate-defined quantum dots”
36. Sebastian Lalik “Nanocomposites based on liquid crystalline (S)-MHPOBC matrix and Au nanoparticles”
37. Vladimir Lipp “Numerical investigation of radiation-induced dynamics of solids in two-dimensional geometry”
38. Natalia Osiecka-Drewniak, Aleksandra Dziuba “Polymorphism and physical stability of aripiprazole”
39. Afaf Oulmidi “Environmental-friendly adsorbent based on pyridine blocks for removal of heavy metals”

40. Anna M. Piekarska “Emergence of a superglass phase in a Bose-Hubbard model with off-diagonal disorder”
41. Marcin Piwowarczyk “Phase situation of (E)-4-((4-alkyloxyphenyl)diazenyl)phenyl alkanoates and their mixtures with chiral mesogens”
42. Mohammad S. Shakeri “The effect of solvent on oxidation behavior of copper during laser irradiation of suspension, a reactive bond molecular dynamics study”
43. Paweł Sobieszczyk “Influence of He<sup>+</sup> irradiation and surface effects on compensation point in ferrimagnetic TbFe alloys”
44. Michał Stawiarz “The analysis of anisotropy in polydispersed multiphase composites”
45. Adrian Warzybok “Serendipitous formation of a dumbbell-like CN-bridged Ni(II) dimer”
46. Olha Vinnik “The lattice specific heat of metal-organic materials with chain-like crystal structure”
47. Weronika Zajac “Luminescent synthetic opals for angle-dependent emissive colour”
48. Michał Żurek “The TP-C isotherms of LaNi<sub>5</sub> and LaNi<sub>4.75</sub>Pb<sub>0.25</sub> alloy at different temperatures statistical physics modelling of hydrogen sorption onto: Microscopic state investigation, interpretation and comparison between alloys”