TUESDAY, SEPT. 12TH, 2023
POSTER SESSION # 1

MULTIFUNCTIONAL THIN FILMS & COATINGS - NANOBIOMEDICAL RESEARCH & APPLICATIONS - NANOMAGNETISM & MAGNETIC MATERIALS - NANOPHOTONICS

CONFERENCE ROOM "ROME"
5:30 – 7:30PM

ID	No	Title	Authors	Track
468	P1-1	Multilayer Nanoscale WN/NbN Coatings with Superior Mechanical Properties and Wear Performance	Kateryna Smyrnova, Martin Sahul, Marián Haršáni, Alexander Pogrebnjak, Lubomír Čaplovič, Vyacheslav Beresnev, Mária Čaplovičová, Martin Kusy	Multifunctional Thin Films & Coatings (MTFC)
479	P1-2	Influence of Bias Voltage on the Structure and Mechanical Properties of Dual DC Magnetron Sputtered Ti-Nb-C Films	Volodymyr Ivashchenko, Aleksey Onoprienko, Alexander Pogrebnjak, Petro Scrynskyy, Oleksandr Marchuk, Andrii Kovalchenko, Olena Olifan	Multifunctional Thin Films & Coatings (MTFC)
483	P1-3	Structure, Hardness and Wear Resistance of Detonation Coating Based on Cr_3C_2-NiCr after Pulse-Plasma Treatment	Dauir Kakimzhanov, Bauyrzhan Rakhadilov, Oleg Kolisnichenko, Yuri Tyurin, Dastan Buitkenov	Multifunctional Thin Films & Coatings (MTFC)
600	P1-4	Electrodeposition in a Magnetic Field of Electrocatalytically Active and Ferromagnetic Alloys	Yuliya Yapontseva, Valeriy Kublanovsky, Tetyana Maltseva, Oksana Gorobets	Multifunctional Thin Films & Coatings (MTFC)
623	P1-5	Inkjet-Printed Luminesce Metal-Organic Framework Patterns as the Ammonia Gas Sensor	Priyanshu Goel, Priyanshu Goel	Multifunctional Thin Films & Coatings (MTFC)
643	P1-6	Luminescent Composites Based on Nanocellulose and $K3Tb(PO_4)_2$ Phosphor – Preparation and Properties	Serhii Nedilko, Vitalii Chornii, Kateryna Terebilenko, Petro Teselko, Vasyl Scherbatskyi, Danylo Gerasymchuk, Artem Voinalovych, Volodymyr Boyko, Yaroslav Zhydachevskyy, Valerii Barbash, Olga Yashchenko	Multifunctional Thin Films & Coatings (MTFC)

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679	P1-7	The Characteristics and Photocatalytic Activity of Lanthanum Doped ZnO Films	Liliia Myroniuk, Denys Myroniuk, Olga Chudinovych, Eduard Maistruk, Ivan Koziarskyi, Olena Olifan, Ihor Danylenko, Arsenii Ievtushenko	Multifunctional Thin Films & Coatings (MTFC)
695	P1-8	Patterning of Titanium Nitride Films by Dry Reactive Ion Etching in Inductively Coupled Plasma	Tibor Izsák, Tomáš Ščepka, Gabriel Vanko, Ján Fedor, Oleksandr Romanyuk, Boris Hudec	Multifunctional Thin Films & Coatings (MTFC)
702	P1-9	Growth of Two-Dimensional MoS_2 and WS_2 Films by Pulsed Laser Deposition on Sapphire Substrates	Marianna Španková, Edmund Dobročka, Tatiana Vojteková, Béla Pécz, Miklós Németh, Peter Hutár, Salvatore Panasci, Filippo Giannazzo, Stefan Chromik	Multifunctional Thin Films & Coatings (MTFC)
705	P1-10	Heterostructures of Diamond and Transition Metal Dichalcogenides	Marián Varga, Michaela Sojkova, Jana Hrdá, Gabriel Vanko, Tibor Izsák, Martin Hulman, Michal Kočí, Jan Fait, Alexander Kromka	Multifunctional Thin Films & Coatings (MTFC)
706	P1-11	High Aspect Ratio GaAs Structures for Improved Radiation Detectors	Tibor Izsák, Gabriel Vanko, Eva Kováčová, Marian Vojs, Bohumír Zaťko	Multifunctional Thin Films & Coatings (MTFC)
708	P1-12	Room Temperature Fabrication of Low Resistivity Titanium Nitride Thin Films by DC Magnetron Sputtering	Tomáš Ščepka, Ján Fedor, Fridrich Egyenes, Marián Precner, Edmund Dobročka, Alica Rosová, Iuliia Vetrova, Boris Hudec	Multifunctional Thin Films & Coatings (MTFC)
716	P1-13	The Development of Nanostructuring Method Metal Surfaces by Electrospark Alloying	Oksana Gaponova, Viacheslav Tarelnyk, Stanislav Marchenko, Ievgen Konoplianchenko, Nataliia Tarelnyk	Multifunctional Thin Films & Coatings (MTFC)
759	P1-14	Mechanical and Tribological Properties of Silver-Doped CrB_2 Thin Films Prepared by DC/HiPIMS Technology	Martin Truchlý, Marián Haršáni, Adam Frkáň, Tomáš Fiantok, Martin Sahul, Tomáš Roch, Peter Kúš, Marián Mikula	Multifunctional Thin Films & Coatings (MTFC)
762	P1-15	Structure, Mechanical and Tribological Properties of Co-Sputtered Zr-Ag-B_2 Thin Films	Tomáš Fiantok, Martin Truchlý, Viktor Šroba, Tomáš Roch, Vitalii Izai, Marek Vidiš, Marián Haršáni, Leonid Satrapinskyy, Marián Mikula	Multifunctional Thin Films & Coatings (MTFC)

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807	P1-16	Experimental Investigation on Structure and Mechanical Properties of WN_x/TiSiN Nanocomposite Multilayer Coatings	Martin Sahul, Barbora Bočáková, Marián Haršáni, Kateryna Smyrnova, Martin Truchlý, Miroslav Sahul, Martin Kusy, Lubomír Čaplovič, Alexander Pogrebnjak, Tomáš Vopát	Multifunctional Thin Films & Coatings (MTFC)
808	P1-17	Antimicrobial Ag Nanoclusters in Hard TiB_2 Matrix Prepared by Magnetron Sputtering	Marek Vidiš, Martin Truchlý, Vitalii Izai, Tomáš Fiantok, Miroslav Rajninec, Tomáš Roch, Leonid Satrapinskyy, Stefan Nagy, Veronika Turiničová, Marián Mikula	Multifunctional Thin Films & Coatings (MTFC)
827	P1-18	Analysis of the Mechanical Properties of WN_x/TiSiN Nanocomposite Multilayer Coating and Its Monolithic WN_x and TiSiN Layers	Martin Sahul, Barbora Bočáková, Marián Haršáni, Kateryna Smyrnova, Miroslav Sahul, Martin Truchlý, Martin Kusy, Lubomír Čaplovič	Multifunctional Thin Films & Coatings (MTFC)
854	P1-19	A Comparative Study of Microstructure and Properties of TiZrN/NbN and TiSiN/NbN Nanolaminate Coatings	Olga Maksakova, Vyacheslav Beresnev, Sergiy Lytovchenko, Diana Kaynts	Multifunctional Thin Films & Coatings (MTFC)
891	P1-20	Analysis of Mechanical Properties of Wire and Arc Additively Manufactured AA5087 Aluminium Alloy	Miroslav Sahul, Martin Sahul, Ladislav Kolařík, Marián Pavlík, Vít Novák, Florian Pixner	Multifunctional Thin Films & Coatings (MTFC)
897	P1-21	Resonances in Nanocomposites with Ferromagnetic Grains FeCoZr Embeded in the CaF2 Matrix	Vitalii Bondariev.	Multifunctional Thin Films & Coatings (MTFC)
898	P1-22	Functionalised High-Entropy Alloys and Coatings with Optimized Physical and Mechanical Properties in Antimicrobial and Biocorrosion Applications	Bogdan Postolnyi, Radu Robert Piticescu, Laura Madalina Cursaru, Beatrice Adriana Serban, Dumitru Mitrica, Arcadii Sobetkii, Vladyslav Rogoz, Vladimir Buranich, Alexander Pogrebnjak	Multifunctional Thin Films & Coatings (MTFC)
509	P1-23	Catalytic Effect of $GdVO_4$:Eu^{3+} Nanocrystals	Svetlana Yefimova, Pavel Maksimchuk, Kateryna	Nanobiomedical Research &

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		Over H_2O_2 Decomposition Reaction	Hubenko, Vladimir Klochkov, Oleksandr Sorokin, Vladyslav Seminko, Lesya Demchenko	Applications (NRA)
525	P1-24	Titanium Oxide Nanoparticles as an Antioxidant for Cryopreservation	Iryna Bespalova, Mariia Yukhta, Viktor Kireev, Pavel Maksimchuk, Vladyslav Seminko, Svetlana Yefimova	Nanobiomedical Research & Applications (NRA)
552	P1-25	Trace Elements as a Specific Marker for Ovarian Cancer Biomineralization	Ruslana Chyzhma, Roman Moskalenko	Nanobiomedical Research & Applications (NRA)
559	P1-26	Microstructure of Antioxidants Based on Orthovanadate Nanocrystals: XPS Study	Kateryna Hubenko, Pavel Maksimchuk, Andrey Onishchenko, Pavel Potapov, Vladimir Klochkov, Svetlana Yefimova, Martin Knupfer	Nanobiomedical Research & Applications (NRA)
569	P1-27	Synthesis, Physicochemical Characterization, and Antioxidant Assessment of Biocompatible β-cyclodextrin – Stabilized CeO_2 Nanoparticles	Ganna Grygorova, Vladyslav Seminko, Olga V. Vashchenko, Dmitry Sofronov, Svetlana Yefimova	Nanobiomedical Research & Applications (NRA)
605	P1-28	Nano-engineered Materials in Cosmetics, Safety Aspects: Data System “Rana”	Viktoriia Paientko, Ewa Skwarek	Nanobiomedical Research & Applications (NRA)
644	P1-29	Bioinspired Adhesive Nanofibrous Hydrogel Demonstrates Synergistic Effect of Chemo-immunotherapy for Osteosarcoma Treatment	Wei Yuan Huang	Nanobiomedical Research & Applications (NRA)
678	P1-30	Silicon Surface Sonomodification for Biointegration	Rada Savkina, O.Y. Gudimenko, Vasyl Morozhenko, Oleksii Smirnov, Maria Smoliy	Nanobiomedical Research & Applications (NRA)
758	P1-31	Effect of Silver Nanoparticles Incorporation on Properties of Poly(lactic acid)/Chitosan Electrospun Nanofibrous Composite	Yuliia Varava, Kateryna Diedkova, Yevheniia Husak, Yevhen Samokhin, Valeriia Korniienko, Baiba Zandersone, Baiba Krauze, Vladlens Grebnevs, Tatjana	Nanobiomedical Research & Applications (NRA)

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			Tračevska, Maksym Pogorielov, Viktoriia Korniienko	
768	P1-32	The Structure of Nanocrystalline Calcifications from the Gallbladder	Roman Moskalenko, Sergey Danilchenko, Andriy Stepanenko, Tattygul R Akhunbaeva, Roman K Kalmatov	Nanobiomedical Research & Applications (NRA)
780	P1-33	Refining the Thermal Decomposition Method for Semi-Continuous Production of Magnetic Iron Oxide Nanoparticles	Egon G Höfgen, Sulalit Bandyopadhyay	Nanobiomedical Research & Applications (NRA)
806	P1-34	Multifluid Side-by-Side Electrospun Tri-layer Janus Fiber with Different Spinnable Solutions	Meng-Long Wang, Deng-Guang Yu, Sim Wan Annie Bligh	Nanobiomedical Research & Applications (NRA)
842	P1-35	Multifluid Side-by-Side Electrospun Tri-Layer Janus Fiber with Different Spinnable Solutions	Sim Wan Annie Bligh, Deng-Guang Yu, Meng-Long Wang	Nanobiomedical Research & Applications (NRA)
886	P1-36	MXene-cell Interactions: Influence of Size and Protein Corona Formation	Kateryna Diedkova, Evelina Bebre, Una Riekstina, Iryna Roslyk, Ivan Baginskyi, Veronika Zahorodna, Oleksiy Gogotsi, Maksym Pogorielov	Nanobiomedical Research & Applications (NRA)
887	P1-37	Identification of Pathogenic Fungus on Biosurface Using Optical Coherence Tomography Combined with Laser Speckle Contrast Imaging	Eglė Vansevičiūtė, Rimantas Daugelavičius, Simona Vaitkienė, Mikus Melderis, Roman Viter, Mindaugas Tamošiūnas	Nanobiomedical Research & Applications (NRA)
893	P1-38	Labeling of Cellular Targets Using Promising Two-Photon Contrast Agent Based on Sorted Nitrogen-Doped Graphene Quantum Dot–Polymer Conjugates Exhibiting Excitation-Wavelength-Independent Photoluminescence	Wen-Shuo Kuo	Nanobiomedical Research & Applications (NRA)

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894	P1-39	Application of MoS_4^{2-} Intercalated Magnetic Layered Double Hydroxide for Preconcentration of Cadmium and Lead from Water Samples	Luthando Nyaba, Philiswa Nosizo Nomngongo	Nanobiomedical Research & Applications (NRA)
895	P1-40	Molecularly Imprinted Polypyrrole Electrochemical Sensor for L. Monocytogenes Detection	Maksym Pogorielov, Viktoriia Korniienko, Kateryna Diedkova, Vilma Ratautaite, Arunas Ramanavicius.	Nanobiomedical Research & Applications (NRA)
896	P1-41	Size and Concentration Dependence of Antimicrobial Activity for Copper Nanoparticles	Yuliia Varava, Valeriia Korniienko, Rafal Banasiuk, Roman Moskalenko, Maksym Pogorielov, Viktoriia Korniienko.	Nanobiomedical Research & Applications (NRA)
535	P1-42	Investigation of Self-Nucleation and Induction by Magnetic Moment of MFM Tip of the Skyrmion State Inside the Patterned Nanodots Multilayer Structure	Iuliia Vetrova, Mateusz Zelent, Ján Šoltýs, Tomas Scepka, Ján Dérer, Roman Stoklas, Vladimír Cambel, Michal Mruczkiewicz	Nanomagnetism & Magnetic Materials (NMM)
555	P1-43	Observation and Study of Curie Temperature Shift In Ni_xPt_{1-x} Alloy	Branislav Stropkai, Serhii Vorobiov, Erik Cizmar, Vitalii Latyshev, Vladimir Komanicky	Nanomagnetism & Magnetic Materials (NMM)
564	P1-44	Focused Ion Beam Influence on Topological and Magnetic Properties of the Nanostructures	Tetiana Kalmykova, Sergei Krylov, Vladimír Cambel, Tomáš Ščepka	Nanomagnetism & Magnetic Materials (NMM)
582	P1-45	Dynamics of Paramagnetic Centers in Organometallic Nanosystems and their Application in Biomedical Research	Olena Aksimentyeva, Yuliia Horbenko	Nanomagnetism & Magnetic Materials (NMM)
674	P1-46	Structural and Magnetic Transitions in Aged Shape Memory Cu-Al-Mn and Cu-Al-Mn-Fe Alloys	Lesya Demchenko, Anatoliy Titenko, Anatolii Kravets, Yurii Troshchenkov, Rostyslav Ponochovny, Oleksii Titenko	Nanomagnetism & Magnetic Materials (NMM)
691	P1-47	Switching of Ferromagnetic Nano-Triangles by MFM Tip	Tomáš Ščepka, Juraj Feilhauer, Jaroslav Tobik, Sergey Krylov, Tetiana	Nanomagnetism & Magnetic Materials (NMM)

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			Kalmykova, Michal Mruczkiewicz	
700	P1-48	Influence of Paramagnetic GGG Substrate on YIG Films at Millikelvin Temperatures	Rostyslav Serha, Andrey Voronov, David Schmoll, Roman Verba, Sabri Koraltan, Kristyna Davidkova, Barbora Budinská, Qi Wang, Oleksandr Dobrovolskiy, Michal Urbanek, Morris Lindner, Timmy Reimann, Carsten Dubs, Claas Abert, Dieter Suess, Sebastian Knauer, Andrii Chumak	Nanomagnetism & Magnetic Materials (NMM)
701	P1-49	Structural Evolution and Magnetic Properties of the Ni-Fe Nanocomposite Particles Synthesized by Annealed the Mixture of Metal Nitrates and Polyacrylonitriles	Chun-Rong Lin, Ying-Zhen Chen, Pei-Ying Chuang, Li-Huai Huang, Zi-Hao Huang, Kun-Yauh Shih	Nanomagnetism & Magnetic Materials (NMM)
710	P1-50	Propagating Spin-Wave Spectroscopy Studies in a Millikelvin Temperature Environment	David Schmoll, Sebastian Knauer, Rostyslav Serha, Roman Verba, Andrey Voronov, Carsten Dubs, Andrii Chumak	Nanomagnetism & Magnetic Materials (NMM)
711	P1-51	Ferromagnetic Resonance Study of Permalloy Nano-Rectangles	Pavol Neilinger, Tomáš Ščepka, Konstantin Bublikov, Ján Dérer, Miroslav Grajcar, Michal Mruczkiewicz	Nanomagnetism & Magnetic Materials (NMM)
713	P1-52	Non-reciprocal Magnonic Directional Coupler	Noura Zenbaa, Qi Wang	Nanomagnetism & Magnetic Materials
717	P1-53	Modification of Magnetic Semiconductors by Phosphorus Doping	Nataliia Tataryn, Oksana Yastrubchak, Sergii Mamykin, Volodymyr Romanyuk, Oleksandr Kolomys, Xinyu Liu, Jacek Furdyna, Badih A Assaf, Olga Kondratenko	Nanomagnetism & Magnetic Materials (NMM)
719	P1-54	2D Bent Nano-Conduits Made of Partially-Compensated Ga:YIG for Spin-Wave Transport	Andrey Voronov, Ondřej Wojewoda, Kristyna Davidkova, Qi Wang, Carsten Dubs, Michal Urbanek, Andrii Chumak	Nanomagnetism & Magnetic Materials (NMM)

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726	P1-55	Structural and Magnetic Properties of $Y_3Fe_5O_{12}$ Thin Films Grown on Metal Layers	Adam Krysztofik, Emerson Coy, Janusz Dubowik	Nanomagnetism & Magnetic Materials (NMM)
773	P1-56	The Influence of the Magnetic Field on the Morphology and Structural Characteristics of Thin-Film Granular Magnetic Systems Co-Ag and Co-Cu as Functional Elements of Spintronics	Ihor Shpetnyy, Tomáš Plecenik, Yurii Shkurdoda, Iryna Nakonechna, Uliana Shvets	Nanomagnetism & Magnetic Materials (NMM)
791	P1-57	Aging Impact on Crystal Structure and Magnetic Parameters of $KFeO_2$ Nanoparticles	Olesya Nakonechna, Gurmeet Singh Lotey, Iryna Sharai, Andrii Bodnaruk, Victor Kalita, Alexandr Tovstolytkin	Nanomagnetism & Magnetic Materials (NMM)
793	P1-58	Enhancement of LTP Crystallographyc Phase in MnBi Alloy Systems	Tiberiu Roman, Marian Grigoras, Nicoleta Lupu	Nanomagnetism & Magnetic Materials (NMM)
836	P1-59	Semi-Analytical Model of Topological Magnonic Crystal	Juraj Feilhauer, Mateusz Zelent, Zhiwang Zhang, Johan Christensen, Michal Mruczkiewicz	Nanomagnetism & Magnetic Materials (NMM)
868	P1-60	Spin Wave's Dynamics in the Two-Sublattice Magnets	Olha Boliasova, Vladimir Krivoruchko	Nanomagnetism & Magnetic Materials (NMM)
880	P1-61	Characterization of Fe_3O_4-Polyethyleneimine Nanocomposites for Magnetic Harvesting of Freshwater Microalgae	Kristína Gerulová, Alexandra Kucmanová, Zuzana Sanny, Zuzana Garaiová, Eugen Seiler, Mária Čaplovičová, Lubomír Čaplovič, Marián Palcut	Nanomagnetism & Magnetic Materials (NMM)
576	P1-62	Improving the Stability of Carbocyanine J-Aggregates in Layered Polymer Films	Polina Pisklova, Johannes Krause, Steffen Wolter, Tobias Korn, Svetlana Yefimova, Oleksandr Sorokin, Stefan Lochbrunner	Nanophotonics (NP)
587	P1-63	Interaction between J-Aggregates of Cyanine Dyes in Layered Polymer Films	Iryna Ropakova, Polina Pisklova, Svetlana Yefimova, Stefan Lochbrunner, Oleksandr Sorokin	Nanophotonics (NP)

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857	P1-64	Plasmonic Au Nanotube Array Absorber via Template-Assisted Secondary Deposition for Solar Energy Application	Hak-Jong Choi	Nanophotonics (NP)
865	P1-65	Environmentally-Conscious and Cost-Beneficial Selective Extraction of Single-walled Carbon Nanotubes by Conjugated Polymers	Patrycja Taborowska, Andrzej Dzienia, Dawid Janas	Nanophotonics (NP)
867	P1-66	Solvatochromism of Single-Walled Carbon Nanotubes Suspended in Various Organic Media	Andrzej Dzienia, Dominik Just, Dawid Janas	Nanophotonics (NP)