THURSDAY, SEPT. 14TH, 2023
POSTER SESSION # 2

NANOMATERIALS FOR ENERGY & ENVIRONMENT - NANOMATERIALS SYNTHESIS & SELF-ASSEMBLY - NANOSENSORS & NANODEVICES - SUPERCONDUCTIVITY IN NANOSCALE & MESOSCOPIC SYSTEMS

CONFERENCE ROOM "ROME"
5:30 – 7:30PM

ID	No	Title	Authors	Track
467	P2-1	Improvement of Specific Capacity of Lithium Iron Phosphate Battery by Increasing the Surface Area and Electrical Conductivity of Cathode Electrode Using Graphene Foam	Piyaporn Surinlert, Akkawat Ruammaitree	Nanomaterials for Energy & Environment (NEE)
514	P2-2	A Zr-MoF and Conductive Polymer Based Sensitive Electrochemical Detection of Nitrofurantoin Antibiotics in Water	SHALINI SINGH, Priyanshu Goel, Deepanshu Bhatt, Umesh Tiwari, Akash Deep	Nanomaterials for Energy & Environment (NEE)
816	P2-3	Comparing Heat Transfer Rates of Water Based Nanofluids Using a Figure of Merit	Tetiana Rymar, Myroslava Kazmiruk	Nanomaterials for Energy & Environment
583	P2-4	Experimental Study for the Enthalpy of the Diffuse Phase Transitions of Fullerene C60 Solutions in Industrial Paraffin Wax	Vitaly Zhelezny, Yana Hlek, Dmytro Ivchenko, Olga Khliyeva	Nanomaterials for Energy & Environment (NEE)
630	P2-5	Catalytic Activity Assessment of APS Glass Sprayed SnO_2/ZrO_2 Coatings in the Light Activated Degradation of Eosin Y and Toluidine Blue	Alicja Duda, Bartosz Kopyciński, Monika Czerny, Krzysztof Pęcak, Marcin Lis, Adriana Wrona	Nanomaterials for Energy & Environment (NEE)
637	P2-6	Zinc Ferrite Nanoparticles as Electrode Material for Photo-Supercapacitor	PIYALI CHATTERJEE, Kousik Pradhan, Shobha Shukla, Sumit Saxena	Nanomaterials for Energy & Environment (NEE)
658	P2-7	Piezoelectric Nanogenerator Based on Flexible Polylactide/ Bismuth Ferrite 0-3 Type Polymer Composites	Olha Masiuchok, Marcin Godzierz, Sébastien Pruvost, Aurélien Roggero, Urszula Szeluga, Maksym Iurzhenko	Nanomaterials for Energy & Environment (NEE)

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664	P2-8	Effect of GaAs Substrate Orientations and Doping on the Electrical and Optical Properties of Ingap Solar Cell Structures	Saud Alotaibi, Mozart Correa Avila, Labed Madani, Abdulaziz Almalki, Soltan Alhassan, Maryam Al Huways, Yara Galvao Gobato, Hassanet Soda-banlu, Masakazu Sugiyama, Helder Vinicius Avanco Galeti, Noureddine Sengouga, Mohamed Henini	Nanomaterials for Energy & Environment (NEE)
725	P2-9	Computational Fluid Dynamics (CFD) Approach Towards Atomic Layer Deposition (ALD) Process Optimization	Michal Pecz, Boris Hudec	Nanomaterials for Energy & Environment (NEE)
748	P2-10	Correlation of Electrophysical and Mechanical Properties of Polymer Nanocomposites Based on Epoxy Resin with Carbon Fibers	Oksana Lisova, Stanislav Makhno, Ruslana Mazurenko, Sergey Prokopenko, Yurii Sementsov, Mykola Kartel	Nanomaterials for Energy & Environment (NEE)
785	P2-11	Al:$SrTiO_3$@Fe_2O_3@void@SiO_2 Nanoreactors for Efficient Visible Light-Driven Photocatalytic Water Splitting	Ioana Radu, Daniel Gherca, Georgiana Andreea Bulai, Adrian Iulian Borhan, Aurel Pui	Nanomaterials for Energy & Environment (NEE)
786	P2-12	Al:$SrTiO_3$/CoOOH Core-Shell Nanoarchitectures: A Promising Framework for Highly Efficient Adsorption of Tropaeolin 00 Dye and Oxacillin from Wastewater	Ioana Radu, Daniel Gherca, Adrian Iulian Borhan, Georgiana Andreea Bulai, Daniela Dirtu, Alin Constantin Dirtu, Aurel Pui	Nanomaterials for Energy & Environment (NEE)
799	P2-13	The Impact of Chemical Activation on the Structure and Surface Characteristics of Kaolin	Antonina Bondarieva, Viktoriia Tobilko	Nanomaterials for Energy & Environment

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850	P2-14	Acetylene Gas Pyrolyzed Carbon Structures for the Aqueous Supercapacitor Applications	Vishal Shrivastav, Wojciech Nogala, Shashank Sundriyal	Nanomaterials for Energy & Environment (NEE)
855	P2-16	Facile Fabrication of Flexible Zinc Oxide Nanostructured Materials for Applications in Thermoelectric Generators	Raitis Sondors, Margarita Baitimirova, Donats Erts, Jana Andzane	Nanomaterials for Energy & Environment (NEE)
859	P2-17	Fabrication of Cu_2O Nanowire Networks for Thermoelectric Applications	Davis Gavars, Raitis Sondors, Anatolijs Sarakovskis, Artis Kons, Donats Erts, Jana Andzane	Nanomaterials for Energy & Environment (NEE)
884	P2-18	Finite Element Analysis of Composite Materials Reinforced with Flawed Nano-Particles	Waleed Ahmed	Nanomaterials for Energy & Environment
466	P2-19	Facile One-Step Hydrothermal Synthesis of Monolayer and Turbostratic Bilayer *n*-Doped Graphene Quantum Dots Using Sucrose as a Carbon Source	Akkawat Ruammaitree	Nanomaterials Synthesis & Self-assembly (NSS)
490	P2-20	Pulsed Laser Ablation Synthesis of $CeAlO_3$ Nanocrystals	Volodymyr Vasylkovskyi, Iryna Bespalova, Mykola Slipchenko, Olena Slipchenko, Oleksandr Sorokin, Oleg Sidletskiy, Iaroslav Gerasymov Pavlo Arhipov, Serhii Tkachenko	Nanomaterials Synthesis & Self-assembly (NSS)
503	P2-21	Nickel Nano-Particle Synthesis By RF Thermal Plasma Process	Chulwoong Han, Sung Cheol Park	Nanomaterials Synthesis & Self-assembly (NSS)
507	P2-22	Understanding the Properties of Nanoparticles Prepared using Solution Combustion Synthesis in a Closed Environment	ANCHU ASHOK, Luc Vechot, Mamoun Al-Rawashdeh	Nanomaterials Synthesis & Self-assembly (NSS)
520	P2-23	Nitrogen-Doped Graphene and Application as Electrocatalyst for Proton Exchange Membrane Fuel Cells	Adriana Marinoiu	Nanomaterials Synthesis & Self-assembly (NSS)

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528	P2-24	Silver-Containing Nanocomposites with Antimicrobial and Antiviral Activity	Valeriy Demchenko, Nataliya Rybalchenko, Tetiana Hnatiuk, Krystyna Naumenko, Svetlana Zahorodnia, Maksym Iurzhenko, Sergii Riabov	Nanomaterials Synthesis & Self-assembly (NSS)
530	P2-25	Design and Structural Characterization of Semiconducting ZnO/ZnS Hierarchical Nanostructures on the Surface of Porous Silicon	Yana Suchikova, Sergii Kovachov, Ihor Bohdanov	Nanomaterials Synthesis & Self-assembly (NSS)
572	P2-26	Electrochemical Fabrication of Poly(6-aminoindole)–Graphene Oxide Nanostructures on Transparent Electrodes	Yuliia Horbenko, Olena Aksimentyeva, Vasyl Kordan	Nanomaterials Synthesis & Self-assembly (NSS)
573	P2-27	Dissolution-Precipitation Synthesis, Structural and Biological Properties of Copper Whitlockite	Aleksej Zarkov, Diana Griesiute, Agne Kizalaite, Vytautas Klimavičius, Arita Dubnika, Tomoyo Goto, Tohru Sekino	Nanomaterials Synthesis & Self-assembly (NSS)
594	P2-28	Structure, Optical Properties and Photocatalytic Activity of Undoped, Y_2O_3-Doped ZnO Nanocomposites	Olga Chudinovych, Denys Myroniuk, Liliia Myroniuk, Ihor Danylenko	Nanomaterials Synthesis & Self-assembly (NSS)
607	P2-29	The Eco-Friendly Method Synthesis of MXenes Materials Using Surface Acoustic Wave	Joanna Sulej-Chojnacka, Joanna Półrolniczak, Grzegorz Kubicki, Ernest Brzozowski	Nanomaterials Synthesis & Self-assembly (NSS)
660	P2-30	Functionalization of Silica Particles with Polyisoprene or Methacrylate Groups to Improve Macroscopic Mechanical Properties of Thick Elastomeric Films	Olha Maikovych, Emilie Choppe, Anna Stasiuk, Serhii Varvarenko, Wasan Thaokotsee, Jean-Francois Bardeau, Pamela Pasetto	Nanomaterials Synthesis & Self-assembly (NSS)

ID	No	Title	Authors	Track
684	P2-31	Lithium-Induced Reorientation of Few-Layer MoS_2 Films	Michaela Sojkova, Igor Píš, Jana Hrdá, Tatiana Vojteková, Lenka Pribusová Slušná, Karol Végsö, Peter Šiffalovič, Peter Nádaždy, Edmund Dobročka, Miloš Krbal, Paul Fons, Frans Munnich, Elena Magnano, Martin Hulman, Federica Bondino	Nanomaterials Synthesis & Self-assembly (NSS)
685	P2-32	High Carrier Mobility $PtSe_2$ Thin Films Grown by One-Zone Selenization on Various Substrates	Jana Hrdá, Tatiana Vojteková, Lenka Pribusová Slušná, Ondrej Pohorelec, Dagmar Gregušová, Martin Hulman, Michaela Sojkova	Nanomaterials Synthesis & Self-assembly (NSS)
789	P2-33	Synthesis and Thermal Decomposition of Magnesium Whitlockite	Ligita Valeikiene, Jonas Stadulis, Vytautas Klimavičius, Tomoyo Goto, Tohru Sekino, Aleksej Zarkov	Nanomaterials Synthesis & Self-assembly (NSS)
792	P2-34	Core@Shell@Shell Nano-Photo Reactors Development Using Al:$SrTiO_3$@FeOOH@SiO_2 System for Photocatalytic Water Splitting	Ioana Radu, Tiberiu Roman, Adrian Iulian Borhan, Georgiana Andreea Bulai, Daniel Gherca, Aurel Pui	Nanomaterials Synthesis & Self-assembly (NSS)
800	P2-35	Chemical Vapor Deposition Growth of Monolayer and Few-Layer $MoSe_2$	Magdalena Precnerova, Marián Precner, Peter Hutár, Viera Skákalová, Ján Šoltýs	Nanomaterials Synthesis & Self-assembly (NSS)
830	P2-36	FT-IR Spectroscopy of $MoTe_2$ Thin Films	Tatiana Vojteková, Lenka Pribusová Slušná, Jana Hrdá, Michaela Sojkova, Martin Hulman	Nanomaterials Synthesis & Self-assembly (NSS)

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608	P2-37	Structural and Optical Characterization of MoS_2 Nanocrystals Prepared by Green Colloidal Synthesis	Peter Hutár, Filip Zechel, Viliam Vretenár, Karol Végsö, Peter Šiffalovič, Milan Sýkora	Nanoscale Characterization & Imaging (NCI)
549	P2-38	Influence of the Hydrogen Gas Concentration on the Resistive Switching in the Pt/TiO_2/Pt Memristor	Marek Vidiš, Michal Patrnčiak, Martin Mosko, Andrej Plecenik, Leonid Satrapinskyy, Tomáš Roch, Pavol Ďurina, Tomáš Plecenik	Nanosensors & Nanodevices (NN)
614	P2-39	Hybrid Metasurfaces Based on Laser-Structured Substrates and Plasmonic Nanoparticles for the Enhancement of Adenosine Nucleotide Raman Spectra	Nataliya Berezovska, Igor Dmitruk, Oleg Yeshchenko, Vladislav Kudrya, Oleksandr Stanovyi, Sergii Golovynskyi, Anastasiya Tomchuk, Yevhen Hrabovskyi, Junle Qu	Nanosensors & Nanodevices (NN)
620	P2-40	Determination of Carbamazepine Using Luminescent Bifunctional Silica-Based Sensor	Halyna Yankovych, Inna Melnyk	Nanosensors & Nanodevices (NN)
627	P2-41	Response Characteristics of Hydrogen Gas Sensor Based on Pt-Tio_2-Pt Sandwich Structure With Nanoporous Top Electrode	Michal Patrnčiak, Ľubomír Staňo, Marek Vidíš, Leonid Satrapinskyy, Tomáš Roch, Pavol Ďurina, Tomáš Plecenik	Nanosensors & Nanodevices (NN)
646	P2-42	SARS-COV-2 Spike Protein Detection Using Silver-Doped Zinc Oxide Tetrapods as SERS Substrate	Edgars Vanags, Ivita Bite, Annamarija Trausa, Karlis Vilks, Krisjanis Smits	Nanosensors & Nanodevices (NN)
697	P2-43	FinFETs versus GAAFETs Performances and Perspectives	Arezki Benfdila	Nanosensors & Nanodevices

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747	P2-44	PEI-ZIF-8 Overlayer Filter to Enhance the Selectivity of Amine Functionalized Nb_2CT_x Sensor Towards NO_2 Gas at Room Temperature	Naveen Kumar Arkoti, Kaushik Pal	Nanosensors & Nanodevices (NN)
802	P2-45	Application of Graphene-Based Nanostructures Enabling Signal Enhancement for Electrochemical Detection of Progesterone Hormone	Disha, Poonam Kumari, Raj Rani, Manoj Kumar Nayak	Nanosensors & Nanodevices (NN)
838	P2-46	Hydrogen Sensing Characteristics of TiO_2 Thin Films Grown by Atomic Layer Depositon using TTIP Precursor with H_2O vs. O_3 Reactants	Boris Hudec, Tomáš Ščepka, Matej Horský, Peter Nádaždy, Iuliia Vetrova, Martin Predanocy, Pavol NEMEC, Róbert Andok, Michal Patrnčiak, Tomáš Plecenik	Nanosensors & Nanodevices (NN)
851	P2-47	Vertical Heterostructure TiO_2 Gas Sensor for Low-Temperature Detection of H_2 via Maskless UV Photolithography	Pavol Nemec, Martin Predanocy, Róbert Andok, Jaroslava Škriniarová, Jaromír Klarák	Nanosensors & Nanodevices (NN)
688	P2-48	The Impact of Solution Treatment on the Properties of High-Temperature Superconductor $YBa_2Cu_3O_{7-x}$	Michal Bennar, Stefan Chromik, Marianna Španková, Marcel Talacko, Juraj Kronek	Superconductivity in Nanoscale & Mesoscopic Systems (SNMS)
645	P2-49	Study of Magnetic and Optical Properties of Mn_2CO_2 MXene	Jiri Kalmar, Frantisek Karlicky	Theory & Modeling (TM)
772	P2-50	The Study ff ZrO_2 Materials with Different Crystalline Structure by Means of Infrared Reflection Spectroscopy	Oleksandr Melnichuk, Nadiia Korsunska, Yuliia Polishchuk, Lyudmyla Melnichuk, Larysa Khomenkova	Theory & Modeling (TM)
856	P2-51	Modeling of Ti_2CO_2 QDs: Influence of Edge Functionalization and Size on Their Properties	Barbora Venosova, Frantisek Karlicky	Theory & Modeling (TM)

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611	P2-52	Computational Study of the Thermal Transport Properties of Hollow-Core Si Nanowires	Vasyl Kuryliuk, Viktoria Shevchenko	Transport Properties in Nanoscale Systems (TPNS)
771	P2-53	Morphology and Optical Properties of Porous Silicon Filled with Luminescent Oxide Dielectric Nanoparticles	Alla Kuryliuk, Volodymyr Boyko, Olga Gomenyuk, Serhii Nedilko, Kateryna Terebilenko, Petro Teselko, Vasyl Scherbatskyi, Vadym Sheludko, Viktoria Shevchenko, Vitalii Chornii	Nanomaterials Synthesis & Self-assembly (NSS)
621	P2-54	Electrical Properties of Mo-W-C Nanocomposite Films	Piotr Gałaszkiewicz, Pawel Zukowski, Tomasz Koltunowicz, Alexander Pogrebnjak, Kateryna Smyrnova, Martin Sahul, Vitalii Bondariev	Transport Properties in Nanoscale Systems (TPNS)
521	P2-55	Iodine-doped Graphene as High Performance Electrocatalyst for Oxigen Reduction Reaction for PEM Fuel Cells	Adriana Marinoiu	Electrochemistry of Nanomaterials (EN)
545	P2-56	Development of Poly(3-Hydroxybutyrate) Based Biocomposites with Graphene Fillers of Various Structure for the Piezoresitive Sensors	Viktoriia Talaniuk, Marcin Godzierz, Urszula Szeluga, Grazyna Adamus, Wanda Sikorska, Yevheniia Buinova, Maksym Iurzhenko, Yevgen Mamunya	Electrochemistry of Nanomaterials (EN)
693	P2-57	Facile Synthesis of PtNiCo/rGO and Its Electrochemical Properties for Direct Methanol Fuel Cells	Kun-Yauh Shih, Chun-Rong Lin, Ming-Chi Tsai	Electrochemistry of Nanomaterials (EN)

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478	P2-58	Synthesis and Identification of Fullerene-24 Adducts with Transition Metals and Lanthanides (by the Example of Zn, Co, and La)	Botogoz Shaimordanova, Josulan Shaimardanov, Natalia Kulenova, Marjan Sadenova, Ludmila Shushkevich, Nikolay Charykov, Victor Keskinov, Alexander Blokhin	Interdisciplinary & Miscellaneous Topics (IMT)
512	P2-59	Expanded Graphite – Carbon Nanotubes Nanocomposite Materials	Kateryna Ivanenko, Dongxing Wang, Evgeny Demianenko, Yuliia Grebel'na, Mykola Kartel, Yurii Sementsov	Interdisciplinary & Miscellaneous Topics (IMT)
568	P2-60	Antibacterial Application of ZnO and CuO Nanoparticles In Polyelectrolyte Multilayers	Nives Matijaković Mlinarić, Anamarija Zore, Aleksander Učakar, Klemen Bohinc	Interdisciplinary & Miscellaneous Topics (IMT)
579	P2-61	Bactericidal Properties Dependent with the Dimension of Nanopillars and Elastic Modulus on Polymeric Nanopillars	Ikki Shingeya, Takeshi Ito, Tomohiro Shimizu, Shoso Shingubara	Interdisciplinary & Miscellaneous Topics (IMT)
601	P2-62	Nano-Sized Chitosan and Plasma-Activated Water: Improving the Microbiological and Physicochemical Properties of Vetch (Vicia sativa L.) Bean Sprouts	Olha Olexandrivna Vasylenko, Tatyana Holovko, Mykola Golovko, Vasyl Pasichniy, Nadiia Lapytska, Qin Xuanxuan, Luo Yanghe	Interdisciplinary & Miscellaneous Topics (IMT)
864	P2-63	Nickel Nanowires Decorated with Palladium Nanoparticles as Powerful Catalysts Facilitating Synthesis of Polyfluorene Derivatives by Suzuki Polycondensation	Tomasz Wasiak, Dominik Just, Andrzej Dzienia, Dariusz Łukowiec, Stanisław Wacławek, Anna Mielańczyk, Dawid Janas	Interdisciplinary & Miscellaneous Topics (IMT)

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889	P2-64	The Electrostatic Control of the Exciton Radiative Lifetime in Quasi Type-II CdSe/CdS Two-Headed Nanostar	Grigor Mantashian, Paytsar Mantashyan	Interdisciplinary & Miscellaneous Topics (IMT)
901	P2-65	Ultrasensitive p-n Heterostructured Thin Film Gas Sensors for N2O Gas Detection	Amanzhol Turlybe-kuly, Yernar Shyny-bekov, Almagul Mentbayeva, Baktiyar Soltabayev	Nanosensors & Nanodevices (NN)
581	P2-66	Effect of the Adsorbed on the Nanoparticles Surface Air Components on the Nanofluid Colloidal Stability: An Experimental Study	Volodymyr Borysov, Bohdan Kvasnytskyi, Nikita Khliiev, Vitaly Zhelezny, Vladimir Gotsulskiy	Nanomaterials for Energy & Environment (NEE)
661	P2-67	An Experimental Investigation of the Caloric Properties for the Composite Phase-Change Material Paraffin Wax-Expanded Graphite	Vitaly Zhelezny, Dmytro Ivchenko, Yana Hlek, Olga Khliyeva	Nanomaterials for Energy & Environment (NEE)