

VIII International Conference

“Nanotechnologies and Nanomaterials” (NANO-2020)

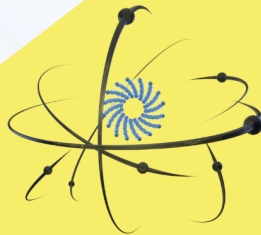
August 26th - 27th, 2020

the House of Scientists in Lviv, Lystopadovoho Chynu St., 6

If you want to be able to communicate with participants and invited guests of NANO-2020 conference, please register on the online platform: <https://virtual-nano-2020.b2match.io/>
After registration, you will be able to book personal meetings and communicate with colleagues from around the world!

The virtual platform for communication is organized by EEN-Ukraine Consortium and is free of charge.

EEN-Ukraine
consortium



Program

Wednesday, August 26th, 2020

9:00-18:00 | **Registration (6 Listopadovoho Chyna Street, Lviv, House of Scientists)**

10:00-10:10 | **Welcome speech**

10:10-13:05 | **Plenary Section (Acad. Leonid Yatsenko)**

10:10-10:35 | **Prof. Tymish Y. Ohulchanskyy** – Shenzhen University, College of Physics and Optoelectronic Engineering (China)



"Infrared emitting nanoparticles as agents for biomedical imaging, optical sensing and therapy"

10:35-11:00 | **Dr. Oleksiy Shvets** – L.V.Pisarzhevskii Institute of Physical Chemistry (Ukraine)



"Catalytic properties of nanocomposites based on metal oxides and hierarchical zeolites (0D, 1D or 2D) in fine chemical synthesis reaction"

11:00-11:25 | **Dr. Raul Arenal** – Instituto de Nanociencia de Aragon (Spain)



"Structural and chemical analyses at the atomic scale of 1D carbon nanomaterials"

11:25-11:50 | **Dr. Dmitry Dirin** – ETH Zurich, Chemistry Department (Switzerland)



"Defect tolerance allows unusual synthetic approaches to the lead halide perovskite nanocrystals"

11:50-12:15



Dr. Leonid Dolgov – University of Tartu (Estonia)

"Flakes of reduced graphene oxide and silver nanoparticles for surface enhanced vibrational spectroscopy of DNA constituents"

12:15-12:40



Prof. Dmytro Zayachuk – Lviv Polytechnic National University (Ukraine)

"PbTe, SnTe, and GeTe surface nanostructures formed by Ar⁺ ions sputtering"

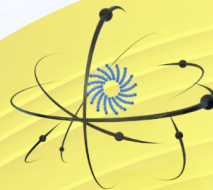
12:40-13:05



Dr. Taras Turiv – Kent State University (USA)

"Active matter controlled by nanopatterned nematic liquid crystal"

13:05-14:00 | **Coffee break and Conference photo**



Program

Wednesday, August 26th, 2020

14:00-
14:15



Dr. Pawel Sikora – Technical University of Berlin (Germany)
"The effects of nano- and micro-particle additives on the of 3D printable cementitious materials – A review"

14:15-
14:30



Dr. Sergey Kolotilov – L.V.Pisarzhevskii Institute of Physical Chemistry (Ukraine)
"Composites of 3d metals and N-containing carbeneous nanoparticles for catalytic hydrogenation, amination and cyclization processes"

14:30-
14:45



Prof. Anatoli Popov – Institute of Solid State Physics, University of Latvia (Latvia)
"Basic properties and distinctive features of radiation defect recombination in functional ceramics for nuclear applications"

14:45-
15:00



Dr. Olena Fesenko – Institute of Physics NANU (Ukraine)
"Volume waveguide nanostructures (VWS) for surface enhanced Raman spectroscopy of DNA constituents"

15:00-
15:30



Dr. Oleg Lavrentovich – Kent State University (USA)
"Nanostructured liquid crystal elastomers to control topology of living tissues"

15:30-
16:00



Prof. Yury Gogotsi – Drexel University (USA)
"MXenes - Two-Dimensional Building Blocks for Materials and Technologies of the Future"

16:00-
17:00



The Nobel Prize Laureate, Prof. Roald Hoffmann – Cornell University (USA)
"Small but Strong Lessons from Chemistry for Nanoscience"

17:00-17:30

Information session about Horizon 2020, COSME & EEN Programmes

17:00-
17:15



Dr. Andrii Yaremkevich – EEN Expert
"EEN and its Instruments for support innovations"

17:15-
17:30



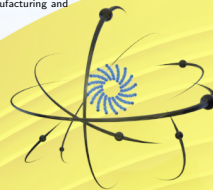
Lyubomyr Nykyruy – Expert of NCP "Nanotechnologies, advanced materials, biotechnology, advanced manufacturing and processing" H2020
"Last calls in H2020"

17:30-18:00

Concert and Welcome networking cocktail

10:00-18:00

Poster Session



09:00-18:00 | **Registration**

09:00-09:45 | **Section “Nanoplasmonics and surface-enhanced spectroscopy” (Dr. Olena Fesenko)**

09:00-09:15 | **PhD student Peter Demydov** – Lashkaryov Institute of Semiconductor Physics (ISP), NAS of Ukraine



“LSPR - nanoparticle array as a sensitive layer in a MIP-based chip for explosives detection”

09:15-09:30 | **Dr. Victor Zadorozhnii** – Taras Shevchenko National University of Kyiv



“Modelling the spectra of surface plasmons in an ITO nano-ribbon gratings”

09:30-09:45 | **(PhD) Student Anastasiia Marushenko** – National University of Kyiv Mohyla Academy



“Effect of chemical composition and thickness of $MgxZn1-xO$ films on plasmon-phonon interaction in $MgxZn1-xO/6H-SiC$ structures”

09:45-12:00 | **Section “Nanocomposites and nanomaterials”**

09:45-10:00 | **Dr. Anton Lytvynenko** – L.V.Pisarzhevsky Institute of Physical Chemistry of NAS of Ukraine



“Nanoporous metals, neat and modified by porous substances, as an “inverted” alternative to discrete nanostructures”

10:00-10:15



Dr. Yevhenii Havryliuk – V. Lashkaryov Institute of Semiconductor Physics NAS of Ukraine

“Raman characterization of Cu_2ZnSnS_4 -type nanocrystals obtained at different parameters of colloidal synthesis”

10:15-10:30



PhD Alena Shumskaya – Institute of chemistry of new material (Belarus)

“Iron oxide nanorods, decorated by gold nanoparticles”

10:30-10:45



Prof. Sergiy Kotrechko – G.V. Kurdyumov Institute for Metal Physics, NAS of Ukraine

“Lifetime of carbyne-graphene nanoelements”

10:45-11:00



Student Aleksandr Murmantsev – Taras Shevchenko National University of Kyiv

“Spectroscopy of Underwater Electric Spark Discharge between Metal Granules”

11:00-11:15 | **Coffee break**



11:15-
11:30



Dr. Yuliia Bondar – The Institute of Environmental Geochemistry of National Academy of Ukraine
"Synthesis and evaluation of nano manganese dioxide with layered structure as an adsorbent for selective removal of strontium ions from aqueous solution"

11:30-
11:45



Dr. Vitalii Chornii – National University of Life and Environmental Sciences of Ukraine
"Effects of Eu³⁺ and F- doping on structure and optical properties of zirconium oxides"

11:45-
12:00



Dr. Ruslan Sergiienko – Physico-Technological Institute of Metals and Alloys of the National Academy of Science of Ukraine
"Zr-based amorphous and nanostructured ribbon"

12:00-13:45 | Section "Nanoscale physics"

12:00-
12:15



PhD student Dmytro Harbuz – National Technical University "Kharkiv Polytechnic Institute"
"Cluster source of vacuum ultraviolet and ultrasoft x-ray radiation: from basic research to practical application"

12:15-
12:30



Dr. Elena Zhitlukhina – O.O. Galkin Donetsk Institute for Physics and Engineering, NAS of Ukraine
"Anomalous enhanced thermal noise in quantum rings"

12:30-
12:45



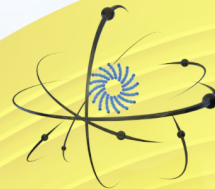
Dr. Oksana Koplak – Taras Shevchenko National University of Kyiv
"Magnetocaloric effect in multilayered Gd films with different substrate orientation"

12:45-
13:00



PhD student Vitalii Polovyi – Lviv Polytechnic National University
"The influence of Coulomb interaction on the frequency spectrum of surface plasmons in dielectric/metal/dielectric structures"

13:00-13:45 | Break



13:45-16:15 | Section "Physico Chemical nanomaterials science"

13:45-
14:00



Dr. Mykhailo Kurmach – L.V. Pisarzevskii Institute of Physical Chemistry of NAS of Ukraine
"Hierarchical zeolites as efficient catalysts for substituted 4-bromo-2,3-dihydro-1H-inden-1-ols dehydration"

14:00-
14:15



PhD student Dariusz Chomicki – Institute of Physics, University in Toruń (Poland)
"Influence of substituents on photoresponsive behavior of methacrylic polymers containing 8-hydroxy-quinoline azo-dyes in side-chain"

14:15-
14:30



Dr. Yuliia Horbatenko – B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine
"The thermal conductivity features of molecular crystals formed by flexible molecules"

14:30-
14:45



PhD student Jakub Matusiak – Maria Curie-Skłodowska University in Lublin (Poland)
"Comparison of the adsorption and the electrokinetic properties of the fucoidan/CaCl₂/TiO₂ and fucoidan/CaCl₂/Al₂O₃ systems"

14:45-
15:00



Prof. Tatyana Zheltonozhskaya – Institute of Macromolecular Chemistry, NAS of Ukraine
"Micellar nanostructures of block copolymers with weakly and strongly interacting blocks"

15:00-
15:15



Dr. Andrii Panko – F.D.Ovcharenko Institute of biocolloid chemistry NAS of Ukraine
"Nano-, micro- and macro-transformations of marine sediments under the influence of biocolloid processes and nanotechnology of their enrichment and application"

15:15-
15:30



Prof. Yurii Pashkevich – O.O. Galkin Donetsk Institute for Physics and Engineering, NAS of Ukraine
"Low temperature heat capacity of Co-containing layered double hydroxides: magnetic Schottky-like anomaly"

15:30-
15:45



Dr. Ievgen Polunkin – V.P. Kukhar Institute of Bioorganic Chemistry and Petrochemistry
"Improving the chemical properties of diesel fuel using microadditive of carbon spheroidal nanoparticles"

15:45-
16:00



Student Maryna Dryhailo – V.N.Karazin Kharkiv National University
"Fundamental research of impact of presence of amino acids on calcium oxalate monohydrate processes in human organism imitating conditions"

16:00-16:15 | Break



16:15-18:30

Sections "Nanostructured surfaces" & "Nanobiotechnology for health-care"

16:15-16:30



Prof. Mikhail Belogolovski – O.O. Galkin Donetsk Institute for Physics and Engineering, NAS of Ukraine
"Conductance dips in point-contact Andreev reflection spectra"

16:30-16:45



Prof. Andrii Goriachko – Institute of Physics of the NAS of Ukraine, National Taras Shevchenko University of Kyiv
"Self-Assembled Rare-Earth Nanostripe Arrays in the Ce/Mo(112) System"

16:45-17:00



PhD student Pavlo Golub – Institute of Physics of the NAS of Ukraine
"Topological defects movement control in liquid crystal cells"

17:00-17:15



Prof. Andrii Netreba – Taras Shevchenko National University of Kyiv
"Noise component evaluation for proton magnetic resonance response in multi-parametric biological tissues characteristics spatial recovery"

17:15-18:00



Dr. Iryna Ryzha – Lviv Polytechnic National University
"Fine structure of oscillatory reaction of carbon monoxide oxidation on the metal catalyst surface"

18:00-18:15



Dr. Rostyslav Lesyuk – University of Rostock (Germany)
"Colloidal 2D nanomaterials: shape and dimensionality control opens intriguing properties"

18:15-18:30



Prof. Viktor Tokarev – Lviv Polytechnic National University
"Synthesis and properties of nanocomposite hydrogels with embedded surface-modified hydroxyapatite nanoparticles"

18:30-18:45



PhD student Oksana Kaleinikova – Bogomoletz Institute of Physiology, NAS of Ukraine
"The influence of gold nanocomposites treatment on male reproductive function"

18:45-19:00



Prof. Bohdan Lukyanets – Lviv Polytechnic National University
"Changes in the physical properties of the layered crystals caused by ultrasound treatment"

19:00

Closing ceremony the "life" part of NANO-2020 Conference

09:00-18:00

Poster Session

19:00-21:00

Excursions around city center of Lviv



Useful links

Dear participants!

We kindly invite you to watch the online broadcast of our conference:



Day 1 <https://youtu.be/0tYVDh6UMJM>



Day 2 <https://youtu.be/fyoBD8bbW6Y>

Also you can book meetings with conference participants and other representatives of the scientific and business community to discuss scientific cooperation, writing joint projects, etc. Please register on our communication platform and book the meetings:



<https://virtual-nano-2020.b2match.io/>

More information you can find on our website:



<http://nano-conference.iop.kiev.ua/en/>

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