

# NanoTech Poland 2024

Hours	05th June - Wednesday			Hours	06th June - Thursday			Hours	07th June - Friday		
9:30 - 10:00	<b>Conference opening</b> - Chair: Bogusław Mróz/Grzegorz Nowaczyk Bogumiła Kaniewska - Her Magnificence Rector of AMU			9:00-9:45	Chair: Emerson Coy Plenary Lecture <b>Arben Merkoci</b> <i>Sustainable nanobiosensors for diagnostics</i>			9:30-10:15	Chair: Maciej Wiesner Plenary Lecture <b>Laura Na Liu</b> <i>DNA-engineered nanophotonics</i>		
10:00 - 10:45	Plenary lecture <b>Mikhael Bechelany</b> <i>Recent Advances and Emerging Applications of Atomic Layer Deposition (ALD) on High-Aspect Ratio Materials</i>			9:45 - 10:30	Plenary Lecture <b>Federico Rosei</b> <i>Multifunctional materials for emerging technologies</i>			10:15 - 10:45	<b>Coffee Break</b>		
10:45 - 11:15	<b>Coffee break</b>			10:30 - 11:00	<b>Coffee break</b>			10:15 - 10:45	<b>Coffee Break</b>		
	Section Lectures				Section Lectures				Section Lectures		
	Chair: Jacek Jencyk A: Invited	Chair: Rokšana Markiewicz B: Invited			Chair: Ryszard Czajka A: Invited	Chair: Bartosz Grześkowiak B: Invited			Chair: Bogdan Idzikowski A: Invited	Chair: Arkadiusz Ptak B: Invited	
11:15 - 11:45	<b>Anne Staubitz</b> <i>Controlling movement with light: new materials for soft robotics</i>	11:15 - 11:45	<b>Christoffer Åberg</b> <i>Nanoparticle cell uptake and distribution: From the single particle to the cell population level</i>	11:00 - 11:30	<b>Alessandro Baraldi</b> <i>Beyond the Bulk: Delving into Sub-Nanoscale Oxide Unicity</i>	11:00 - 11:30	<b>Zdenek Farka</b> <i>Bioconjugates of photon-upconversion nanoparticles for single-molecule assays and imaging</i>	10:45 - 11:15	<b>Michał Rajnak</b> <i>Magnetic fluids in liquid-immersed transformers</i>	10:45 - 11:15	<b>Henri Franquelim</b> <i>Remodeling and Sensing of Lipid Membranes using DNA Origami</i>
	A: Contributed		B: Contributed		A: Contributed		B: Contributed		A: Contributed		B: Contributed
11:45 - 12:15	<b>Arkadiusz Ptak</b> <i>Friction at the nanoscale: Experiments and simulations</i>	11:45 - 12:15	<b>Cristina Satriano</b> <i>Bioinspired and green approaches based on nanozyme 2D materials beyond graphene to address new challenges in health and environment</i>	11:30 - 12:00	<b>Katarzyna Siuzdak</b> <i>Laser beam as a tool for the reshaping of nanomaterials</i>	11:30 - 12:00	<b>Jean-Marc Greneche</b> <i>Atomic scale structural and physical properties of nanoparticles</i>	11:15 - 11:35	<b>Karol Załęski</b> <i>Exfoliation and transfer of the Heusler alloys thin films grown on graphene</i>	11:15 - 11:35	<b>Marta Woźniak-Budych</b> <i>The antibacterial and antifouling properties of nano-enhanced membranes for hemodialysis</i>
	A: Contributed		B: Contributed		A: Contributed		B: Contributed		A: YRF		B: YRF
12:15 - 12:35	<b>Adrian Franczyk</b> <i>Synthesis and characterization of functional silsesquioxanes</i>	12:15 - 12:35	<b>Katarzyna Fiedorowicz</b> <i>Effects of lipid liquid nanocrystalline nanoparticles on murine macrophage cell line</i>	12:00 - 12:20	<b>Anna Pajor-Świerzy</b> <i>Effect of silver shell thickness on conductivity of coatings based on nickel-silver core-shell nanoparticles</i>	12:00 - 12:20	<b>Weronika Andrzejewska</b> <i>Novel virus-like particle (VLPs) arrays for biosensing based on surface lattice resonance</i>	11:35 - 11:50	<b>Joanna Marciniak</b> <i>Magnetic properties of FeCo alloys: bulk and thin films</i>	11:35 - 11:50	<b>Emilia Krok</b> <i>Nanoscale structural response of biomimetic cell membranes to controlled dehydration</i>
	A: YRF		B: YRF		A: YRF		B: YRF		A: YRF		B: YRF
12:35 - 12:50	<b>Dominik Florjan</b> <i>Computational investigation of friction behavior at high sliding speeds for graphene oxide – silicon oxide materials pair</i>	12:35 - 12:50	<b>Kaja Jaskot</b> <i>Application of Silica Nanoparticles for Cellular Senescence Detection</i>	12:20 - 12:35	<b>Jakub Szewczyk</b> <i>Recipe for a NanoHoneyCake: Organic/Inorganic Large-Scale Multilayer Nanocomposite Photocatalyst</i>	12:20 - 12:35	<b>Klára Gajdošová</b> <i>Simultaneous detection of serotonin and sertraline with surface-enhanced Raman spectroscopy (SERS) for potential clinical application</i>	11:50 - 12:05	<b>Szymon Murawka</b> <i>Determination of magnetic properties of iron oxide nanowires on Cu(410) using magneto-optical Kerr effect (MOKE) measurements</i>	11:50 - 12:05	<b>Mahreen Akhtar</b> <i>Nano-armor against pathogens: exploring the antibacterial potential of bismuth selenide nanoparticles</i>
12:50 - 14:00	<b>Joint photo/lunch</b>			12:50 - 14:00	<b>Lunch</b>			12:05 - 13:00	<b>Lunch</b>		

**Plenary lectures:** Labuda Auditorium  
 A: Advanced nanomaterials Hall A  
 B: Nanobiomedicine Hall B

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	Chair: Karol Załęski A: Invited	Chair: Olena Ivashchenko B: Invited		Chair: Igor Iatsunskiy A: Invited	Chair: Patrick Perrigue B: Invited	13:00-13:30	
14:00 - 14:30	<b>Ignasi Fina</b> <i>Ferroelectric hafnia: an opportunity for next-gen memory devices</i>	14:00 - 14:30	<b>Wei Wang</b> <i>Multifunctional nanoparticles enhanced hydrogels for wound healing</i>	14:00 - 14:30	<b>Yogendra Kumar Mishra</b> <i>Tetrapods based Smart Materials for Advanced Technologies</i>	14:00 - 14:30	<b>Magdalena Otrocka</b> <i>A Paradigm Shift: The Role of AI and Morphological Profiling in Shaping Early Drug Discovery</i>
	A: YRF		B: Contributed		A: YRF		
14:30 - 14:45	<b>Wojciech Marciniak</b> <i>Machine learning-based molecular dynamics for unveiling the ultrafast demagnetization of fcc Ni</i>	14:30 - 14:50	<b>Michele Bianchi</b> <i>Micro/nanopatterning of conductive polymers for advanced biointerfaces</i>	14:30 - 14:45	<b>Andrii Lys</b> <i>1D electrospun nanocomposite nanofibers for efficient photocatalytic applications</i>	14:30 - 15:00	<b>Lijing Ke</b> <i>Self-assembled Nanoparticles in Clam Soup: Secret behind Traditional Chinese Medicine and Mediterranean Cuisine</i>
			B: YRF				B: YRF
14:45 - 15:00	<b>Natalia Kowalska</b> <i>Towards Intrinsic Chirality: Gold Nanoparticle Synthesis via Multidentate Chiral Inducers</i>	14:50 - 15:05	<b>Karolina Gębicka</b> <i>GMO@DTPA-BSA-Gd lipid nanoparticles as new class of gadolinium-based contrast agents for Magnetic Resonance Imaging</i>	14:45 - 15:00	<b>Piotr Radomski</b> <i>Computational Study of NO<sub>2</sub> Enhanced Adsorption Interaction on MoS<sub>2</sub>, MoSe<sub>2</sub>, and MoTe<sub>2</sub> monolayers</i>	15:00 - 15:15	<b>Vaikunthavasan Thiruchenthooran</b> <i>Indomethacin-Loaded Nanostructured Lipid Carriers - new approach for repurpose old drug towards antitumoral therapy</i>
15:00 - 15:15	<b>Wojciech Wieczorek</b> <i>Electric and memristive properties of methacrylate-based polymer nanobrushes</i>	15:05 - 15:20	<b>Sara Molenda</b> <i>Double functionalization of silk material-spheres for controlled delivery of oligonucleotherapeutics into HER2-overexpressing cancer cells</i>	15:00 - 15:15	<b>Filip Bandalewicz</b> <i>Materials with chiroptical properties – from chiral gold nanoparticles to organic chiral nanocomposites</i>	15:15 - 15:30	<b>Karolina Kustrzyńska</b> <i>Synthesis and characterization of gadolinium oxide hollow spheres as a drug carrier for doxorubicin</i>
15:15 - 15:30	<b>Filip Ratajczak</b> <i>Ultrasound monitoring of emulsion-based magnetic colloidal capsules fabrication</i>			15:15 - 15:30	<b>Bartosz Fabiszczak</b> <i>Optimization of obtaining nanocellulose</i>		
15:30 - 17:00	Poster session A / Coffee Break		15:30 - 17:00	Poster session B / Coffee Break/SP-ICP-MS workshops (at NBMC)			
17:00 - 20:00	Conference dinner		17:00 - 19:00	Grill party			
	A: Advanced nanomaterials Hall A B: Nanobiomedicine Hall B						