Newsletter X (01.10.2025 – 28.02.2026)

SCIENTIFIC MEETINGS

InterNanoPoland2025, 8-9.10.2025, Katowice, Poland

We have organized a scientific panel "NanoFrontiers 2025: Functional Materials Shaping the Future", which is a part of the largest science-business international conference InterNanoPoland which was held on October 8-9, 2025 in Vienna House Easy by Wyndham hotel in Katowice. This session was gathered world-leading experts and innovators spanning nanotechnology of: 1D and 2D nanocarbons, organic electronics, photonics, functional and energy materials, and advanced engineering solutions. This unique convergence of perspectives – from fundamental science to industrial implementation, from secure electronics to advanced nanocarbons – promises to highlight how functional nanomaterials are redefining the frontiers of research, technology, and innovation.

https://internanopoland.com/

The ExCEED project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 952008

Exceed: Creation and development of an ERA Chair and Centre of Excellence in Organic Electronics in Poland

Day 1 - 8.10.2025			
9:00 - 9:30	**Registration**		
9:30 - 9:45	**Conference opening** dr inż. Adam Szatkowski, MBA, CEO NANONET Fundation, Silesia Nano Cluster Bogumił Sobula - Vice President City of Katowice prof. dr hab. inż. Agnieszka Sobczak-Kupiec, Cracow University of Technology prof. dr hab. inż. Adam Woźniak, Warsaw University of Technology, Vice-Rector for Development		
9:45 - 10:30	**Plenary lecture**		
	Commercialisation patterns and strategies in Advanced Materials		Dr Denis Koltsov, Director BREC Solutions
10:30 - 11:00	**Coffee Break / Networking / Poster Session**		
11:00 - 12:40	**Panel I:AI at the Intersection of Science and Business – Revolution or Risk?** Moderated by Huber Adamczyk Panelist: - dr hab. inż. Dorota Wilk-Kołodziejczyk AGH University of Krakow - Małgorzata Belka, Ekspert w obszarze AI, machine learning and data science	**11:00 - 12:40**	**Panel II: NanoFrontiers 2025: Functional Materials Shaping the Future (Panel in English)** Silesian University of Technology Moderated by prof. dr hab. inż. Sławomir Boncel, Silesian University of Technology
	AI is increasingly shaping the way research is conducted and innovations are created. During the panel, we will explore how AI, machine learning, and data science can support researchers and entrepreneurs – from automating data analysis and speeding up the interpretation of results to discovering new directions for development. We will also consider the risks: could excessive trust in algorithms lower the quality of research? What ethical challenges do AI users face? The discussion will be complemented with practical examples and reflections on the skills researchers and innovators should develop to use AI responsibly and effectively.	11:00 - 11:25	**New advances in tetrazines and heptazines chemistry. Fluorescence, photocatalysis and applications to opv** Prof. Pierre Audebert, ENS Paris-Saclay
		11:25 - 11:50	**Advances and challenges in design of polymer binders for lithium-ion batteries** Prof. Igor Perepichka, Silesian University of Technology, Bangor University
		11:50 - 12:15	**Nanomaterials and molten salt: teaching your old dog a new trick** Prof. Amor Abdelkader, Bournemouth University / University of Cambridge
		12:15 - 12:40	**Porous Framework Materials for Proton Conduction** Prof. Dariusz Matoga, Jagiellonian University in Cracow
12:40-13:30	**Lunch**		
13:30-15:15	**Panel III: Importance of Research on New Materials for the Development of the Industry of the Future (Panel in Polish)** Cracow University of Technology Moderated by dr hab. inż. Krzysztof Mroczka, Cracow University of Technology	**13:30-15:15**	**Panel IV: NanoFrontiers 2025: Functional Materials Shaping the Future** (panel w języku angielskim) Silesia University of Technology Moderator: prof. dr hab. inż. Sławomir Boncel, Silesia University of Technology
13:30-13:45	**Additive manufacturing of advanced materials via LPBF** Prof. dr hab. inż. Piotr Bała, AGH University of Cracow	13:30-13:50	**From Priorities to Projects: Advanced Materials in the EU Agenda and Horizon Europe** Dr inż. Jarosław Piekarski, NCBR
13:45-14:00	**The use of soft materials engineering achievements in the cosmetics and detergent industry (Lecture in Polish)** prof. dr hab. inż. Tomasz Wasilewski, Radom University of Technology, Onlybio.life S.A	13:50-14:20	**Mechanically-Robust Superconductivity in Hybrid Carbon Nanotube Fib er s** Dr. John Bulmer, Air Force Research Laboratory
14:00-14:15	**Lightweight aluminium matrix composites (AlMCs) with ex-situ reinforcement (Lecture in Polish)** dr hab. inż. Anna Janina Dolata, prof. PŚ., Silesian University of Technology	14:20-14:40	**UV-curable photoluminescent inks for document security tagging** dr inż. Marcel Zambrzycki, AGH University of Cracow
14:15-14:30	**Understanding TiC nanoparticle pushing-engulfment phenomenon and its role in tailoring Al-based cast composites for automotive applications (Lecture in Polish)** dr inż. Ewa Olejnik, AGH University of Krakow, Innerco Sp. z o.o.	14:40-14:50	**HOGER – Polish manufacturer of glove cells and isolators** dr inż. Krzysztof Skupień, Hogerbox Sp. z o.o.
14:30-15:15	**Discussion panel: Importance of Research on New Materials for the Development of the Industry of the Future (Panel in Polish)** Moderated by dr hab. inż. Krzysztof Mroczka, Cracow University of Technology	14:50-15:15	**Spectroscopic ellipsometry in the study of optical properties of graphene and graphite-like layers** dr hab. inż. Janusz Jaglarz, prof. PK, Cracow University of Technology
15:15 - 15:30	**Coffee Break**		
15:30 - 17:15	**Panel V: Advanced Materials and Future Technologies in Construction – Durability, Energy Efficiency, and Sustainability (Panel in Polish)** Polish Construction Cluster National Key Cluster Moderated by Mariusz Wasilewski	**15:30 -16:40**	**Panel VI: Nanotechnology in the chemical industry (Panel in English)** Moderated by: Dr Denis Koltsov i Dr inż. Michał Macha
15:30 - 15:35	**Introduction to the panel (Lecture in Polish)** Mariusz Wasilewski, General Director of the Polish Construction Cluster	15:30 - 15:55	**Harnessing carbon nanomaterials: innovative solutions for sustainable chemical processes** Prof. inż. Daniela Plachá, dr hab., Technical University of Ostrava
15:35 - 15:55	**Concrete of the Future: Innovations Transforming Construction (Lecture in Polish)** Daniel Cekała, General Director of Concrete and Prefabrication, Holcim Polska	15:55 - 16:20	**Nanomaterials as Additives to Industrial Lubricants – Current Research by Partners and Lukasiewicz ICSO Blachownia** Dr inż Julia Woch, Lukasiewicz ICSO Blachownia
15:55 - 16:15	**Poland's Response to Global Challenges: A Reliable Supply Chain of Advanced Recycled Vibration Isolation Materials (Lecture in Polish)** Krystian Zaręba Kroll, CEO Pavi Sorte & Ewmet, Wolbrom, Poland	16:20 - 16:40	**Side reactions in aqueous zinc batteries** Dr Yauhen Aniskevich, Centre for Organic and Nanohybrid Electronics, Silesia University of Tochnology
16:15 - 16:35	**Construction of the Future: Low-Carbon Glass and Recycling in Practice (Lecture in Polish)** Aleksandra Uhlarz, Saint-Gobain Glass.		

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16:35 - 16:55	**Innovative Low-Emission Building Materials: High-Fire Impedance Boards Used with RecykloFiber Textile Fiber Insulation** dr Artur Miros, Łukasiewicz-WIT mgr inż. Jacek E. Szymański, Łukasiewicz-WIT		
16:55 - 17:15	**Thermal treatment of sewage sludge in a different way** mgr inż. Danuta Kukielska, Łukasiewicz-WIT		
19:30 - 22:30	Networking | Hotel Vienna House Easy by Wyndham		
Day 2 - 9.10.2025			
09: 00	**Registration**		
9:30-10:00	**The Strategic Technologies for Europe Platform (STEP) (Lecture in Polish)** Dr. Justyna Szlagowska-Spychalska, NCBR	9:30-9:50	**Nano- and microcomposites as novel materials with potential in ionizing radiation shielding** dr hab. inż. Gaweł Żyła, Rzeszów University of Technology
10:00 - 10:30	**Practical Aspects of the Intellectual Property Protection (Lecture in Polish)** Jakub Król AOMB Polska Sp. z o.o.	09:50-10:20	**Navigating Acceptance of New Outstanding Technology** Marek Turkiewicz, COAT-IT
10:20 - 10:50	**Mental Health Challenges of Scientists and Innovators (Lecture in Polish)** lek. Alicja Kosmalska Clinical Psychiatric Hospital in Rybnik	10:20 - 10:50	**New Black Gold for Sustainable Development** Prof. Mohamed M. Chehimi, Université Paris Cité
10:50-11:15	**Coffee Break**		
11:00-13:00	**Anton Paar Show - workshop**		
11:15 - 13:15	**Panel VI: Transfer of Nanotechnology to Industry: Opportunities and Challenges (Panel in Polish)** Warsaw University of Technology Moderated by prof. dr hab. inż. Agnieszka Jastrzębska, Warsaw University of Technology	**11:15-13:15**	**Panel VIII: Nanotechnology in medicine, pharmacy and cosmetology** University of Silesia in Katowice Moderated by prof. Anna Bajorek, University of Silesia in Katowice
11:15-11:45	**Technology transfer at the Warsaw University of Technology** Dr Jakub Kaczmarski, Warsaw University of Technology	11:15-11:40	**Nanomaterials in transdermal delivery of active substances** Dr Marcin Libera, University of Silesia in Katowice
11:45-12:45	**Discussion panel: Transfer of Nanotechnology to Industry: Opportunities and Challenges (Panel in Polish)** **Moderated by prof. dr hab. inż. Agnieszka Jastrzębska, Warsaw University of Technology** Panelist: - prof. dr hab. inż. Adam Woźniak, Warsaw University of Technology - prof. dr hab. Michał Banaszak, Adam Mickiewicz University in Poznań - prof. dr hab. n. med. i n. o zdr. Dariusz Boroń, Center for Research on the Safety of the Healthcare System at WSB Academy in Dąbrowa Górnicza - prof. dr hab. med. Romuald Wojnicz, Medical University of Silesia	11:40-12:05	**From lab to the market: sustainable innovation in cosmetic and medical product development** dr hab. inż. Małgorzata Miastkowska, Cracow Uniwersity of Technology
		12:05 - 12:30	**Nanotechnology trends in the pharmaceutical biophysics group** dr hab. Anna Mrozek-Wilczkiewicz University of Silesia in Katowice, Uniwersytet Śląski w Katowicach
12:45-13:15	In-situ study over post-characterization of amorphous carbon nanofoam supercapacitor (Lecture in English) **dr Subrata Ghosh, Warsaw University of Technology**	12:30-12:55	**Nanoparticles and microbes: an emerging hope and risk assessment** Dr Anna Markowicz, University of Silesia in Katowice
		12:55-13:15	**From Nanomaterials to Therapy: Hexaferrite–rGO Synergy in Hyperthermia Treatment** Mgr Muhammad Shabbir, University of Silesia in Katowice
13:15-14:00	**Coffee Break / Networking / Poster Session**		
13:15-14:45	**NANONET Foundation Think Tank Team Meeting**		

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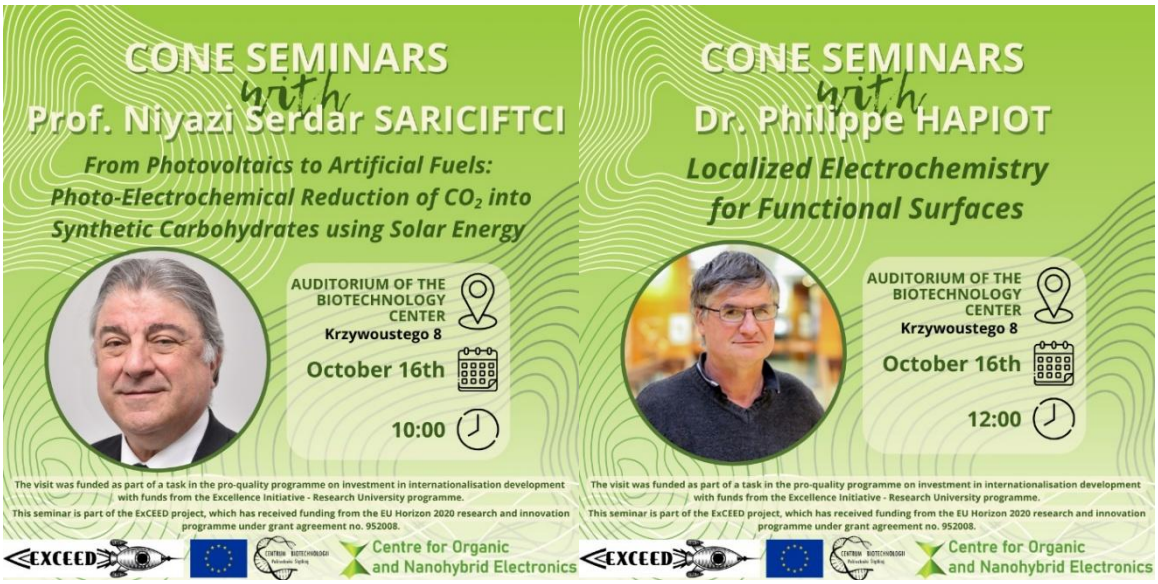
- **The Autumn CONE/ExCEED Scientific Meeting**



On October 16th, we have organized The Autumn CONE/ExCEED Scientific Meeting with two distinguished speakers: Prof. Niyazi Serdar Sariciftci from Linzer Institut für organische Solarzellen, Austria: “From Photovoltaics to Artificial Fuels: Photo-Electrochemical Reduction of CO_2 into Synthetic Carbohydrates using Solar Energy” and Dr. Philippe Hapiot from University of Rennes, France: “Localized Electrochemistry for Functional Surfaces”.

Prof. Sariciftci is Ordinarius Professor for Physical Chemistry and the Founding Director of the Linz Institute for Organic Solarcells (LIOS) at the Johannes Kepler University of Linz/Austria. His major contributions are in the fields of photoinduced optical, magnetic resonance and transport phenomena in semiconducting and metallic polymers. He is the inventor of conjugated polymer and fullerene based "bulk heterojunction" solar cells. Prof. Sariciftci published over 600 publications and with over 94000 citations he is one of the most cited scientists in material science (2011, Thompson Reuter ranking No: 14 of the world in material science). Google scholar ranks Sariciftci with an h-index of >132. Sariciftci has composed 8 books and educated several academic and industrial scientists. He also initiated seven spin off companies for organic optoelectronics.

Dr. Philippe Hapiot is “Directeur de Recherche” in the Centre National of Scientific Research (CNRS). His research interests concern the mechanisms and reactivity in molecular and interfacial electrochemistry taking advantage of fast or localized electrochemical techniques, Scanning Electrochemical Microscopy and Theory of electrochemical processes. His current research focus on the electrochemical reactivity in ionic liquids, surface functionalization on metallic and semiconductor electrodes considering special effects due to environment and applications. He is author of around 220 research papers (H-Index 52) and was nominated Fellow of the International Society of Electrochemistry (ISE).

It was an honor to host such a prominent scientists.

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CONE SCIENTIFIC SEMINARS

- **Guest lecture by Prof. Dirk Vanderzande**

On November 13th, in the Centre for New Technologies (CNT, Konarskiego 22B, Aula A) Prof. Dirk Vanderzande from UHasselt, imo-imomec (HyMaD Group), Belgium gave a lecture "When Organic Semiconductors Merge with 2D Hybrid Perovskites". Prof. Vanderzande discussed how combining organic semiconductors with 2D hybrid perovskites can lead to new, more stable materials for next-generation optoelectronic devices — including solar cells with improved performance and durability.

Prof. Vanderzande is a renowned researcher in organic semiconductors and hybrid materials, author of over 380 scientific papers, 25 patents, and former director of the imo-imomec Institute at UHasselt.

OTHER EVENTS

- **Researchers' Night at Silesian University of Technology**

On October 11th, we had the great pleasure of taking part in the Researchers' Night at Silesian University of Technology — an inspiring evening filled with science, curiosity, and innovation!

At the stand "Plastic" electronics and eco-friendly plastic. Is it even possible?, visitors discovered the fascinating world of sustainable technologies and learned about the physical phenomena behind devices such as OLED displays. The activity was coordinated by Dr. Sandra Pluczyk-Małek.

At the "Biosensors from the kitchen" stand, led by Dr. Ranjith Kumar Deivasigamani, we used logistics games to demonstrate how biosensors and antibodies work.

Dr. Katarzyna Krukiewicz, Prof. SUT, gave a lecture "How to find a needle in a haystack: ultra-sensitive biosensors", introducing the audience to the world of innovative biological detection methods.

It was a night full of knowledge, inspiration, and great energy! Thank you to everyone who visited our booths and attended the lecture. See you next year!

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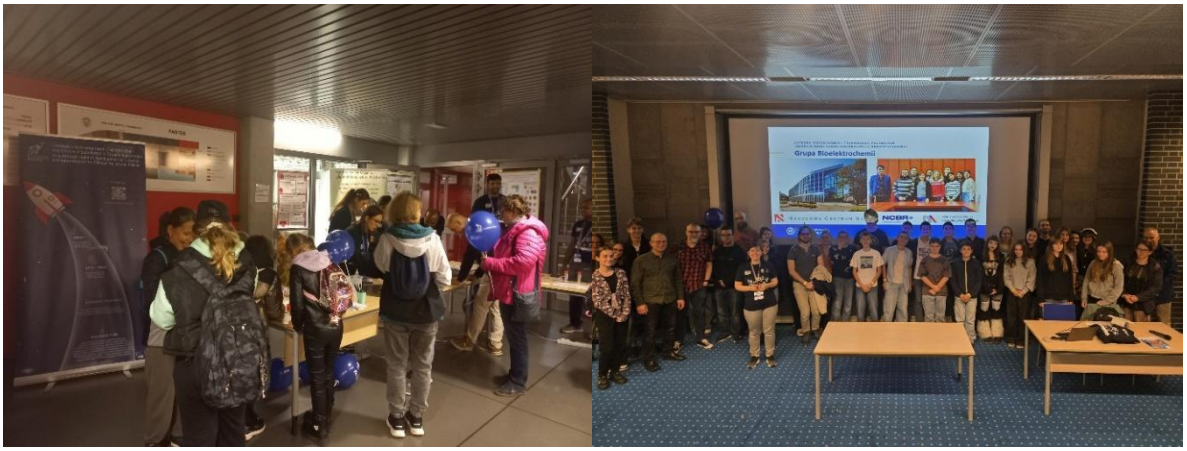

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