

Newsletter VII (01.09.2024 - 31.12.2024)

SCIENTIFIC MEETINGS

- **InterNanoPoland2024, 16-17.10.2024, Katowice, Poland**



We have organized a scientific panel “Organic, Carbon, and Hybrid Nanoelectronics”, which was a part of the largest science-business international conference InterNanoPoland (INP). INP was held on October 16–17, 2024 in Novotel hotel in Katowice.

13:30 - 14:45	Organic, carbon and hybrid nanoelectronics by Silesian University of Technology	
13:30- 13:50	Tetrazines and heptazines. Remarkable electron-poor aromatics with outstanding properties	Prof. Pierre Audebert, ENS Paris-Saclay, France
13:50 - 14:10	Recent advances in electrochromic materials and devices	Prof. Igor Perepichka, Silesian University of Technology
14:10 - 14:30	Heavy-metals-free blue light-emitting quantum dots for color conversion and emissive display application	Prof. dr hab. inż. Artur Podhorodecki, QNA Technologies S.A.
14:30 - 14:45	UV-curable inks based on acrylate oligomers for securing documents	Mgr inż. Monika Adamczyk, 3D NANO
14:45 - 15:00 Coffee break / Poster session: Research and technologies for the development of the nanotechnology industry		
15:00 - 16:00 Organic, carbon and hybrid nanoelectronics by Silesian University of Technology		
15:00 - 15:15	Influence of difficult to quantify parameters on process repeatability in case of solid state synthesis	Dr inż. Michał Kukiełski, Lukasiewicz Research Network – Institute of Microelectronics and Photonics
15:15 - 15:30	Wide color gamut luminescent thermal indicators based on an organic energy donor-acceptor	Dr inż. Piotr Ślęczkowski, Łódź University of Technology
15:30 - 15:45	Fluorene-based solid additives for high-performance non-fullerene-based organic solar cells	Dr Manohar Reddy Busireddy, Silesian University of Technology
15:45 - 16:00	Photoactive covalent triazine framework for CO ₂ reduction	Dr Sebastian Raja, Silesian University of Technology
16:00 - 16:10 Coffee break / Poster session: Research and technologies for the development of the nanotechnology industry		
Discussion Panel Nanotechnology: opportunity or danger by University of Silesia		
16:10 - 17:40	Moderator: Dr hab. Anna Bajorek, prof. US, Institute of Physics, University of Silesia in Katowice, Prof. dr hab. Maria Augustyniak, University of Silesia in Katowice, Prof. dr hab. Robert Musiol, University of Silesia in Katowice, Dr hab. Sławomir Boncel, prof. PŚ, Silesian University of Technology, Dr Sławomir Sulowicz, University of Silesia in Katowice, Dr Anna Nowak, University of Silesia in Katowice	
19:30	Networking Restauracja Browar Mariacki, Mariacka 15, 40-014 Katowice	



InterNanoPoland is dedicated to nanotechnology and advanced materials. It serves as an international forum for scientists, entrepreneurs, business institutions, and students involved in nanotechnology and advanced materials. The conference provides opportunities to present R&D projects and for young scientists to showcase their achievements and share their findings with industry leaders, investors, and invited guests shaping the development of nanotechnology both domestically and internationally. Detailed information about the conference can be found on the event: www.internanopoland.com

CONE SCIENTIFIC SEMINARS

- Guest lecture by Professor Ondřej Jankovský



On October 7th, in the Biotechnology Center (Krzywoustego 8, Aula) Prof. Ondřej Jankovský, Vice-Dean for Science and Research at UCT Prague gave a lecture entitled "Advanced Composite Materials Group: Multidisciplinary Research of Layered Material".

Prof. Ondřej Jankovský is a leading researcher in materials science, with an h-index of 38 and over 230 papers indexed in Scopus. He has been involved in several prestigious research projects and continues to push the boundaries in fields such as superconductors and high-performance composite materials.

More info: <https://uach.vscht.cz/o-ustavu/lide/jankovsky>



- Guest lecture by Dr. Sami Halila



On October 17th, in the Centre for New Technologies (CNT, Konarskiego 22B, Aula A) Dr. Sami Halila from University Grenoble Alpes, CNRS, in France gave a lecture entitled "Synthesis & Applications of Carbohydrate-Based Amphiphiles"

Dr. Halila is a CNRS Director of Research specialized in Glycochemistry in the Group of "Self Assembly of Glycopolymers" at CERMAV, a CNRS Laboratory in Grenoble Alpes University. Currently, his work is focusing on the synthesis and self applications in various fields of glycosciences including nanoparticles, supramolecular gels, antiadhesive therapy and biosensors.

- Guest lecture by Prof. Dmytro F. Perepichka



On October 18th, in the Centre for New Technologies (CNT, Konarskiego 22B, Aula B) Prof. Dmytro F. Perepichka from McGill University, Canada gave a lecture entitled " Furan-Based Organic Semiconductors for Photovoltaics"

Prof. Perepichka group focuses on synthetically driven research of π -electron functional materials, including small molecules, polymers and 2D materials, and understanding of their behavior in optoelectronic devices. He published ca. 200 peer-reviewed journal articles (including *Science*, *Nature Mater.*, *Nature Commun.*, *J. Am. Chem. Soc.*, *Angew. Chem.*, *Adv. Mater.*, *Chem. Rev.*, *Chem. Soc. Rev.*; >12,000 citations, H-index 56) and book chapters and received Research Excellence Award

in Material Chemistry (2015) and T.K. Sham Award (2022) from the Canadian Society of Chemistry.



- Guest lecture by Prof. Pierre Audebert



- Guest lecture by Prof. Hai M. Duong



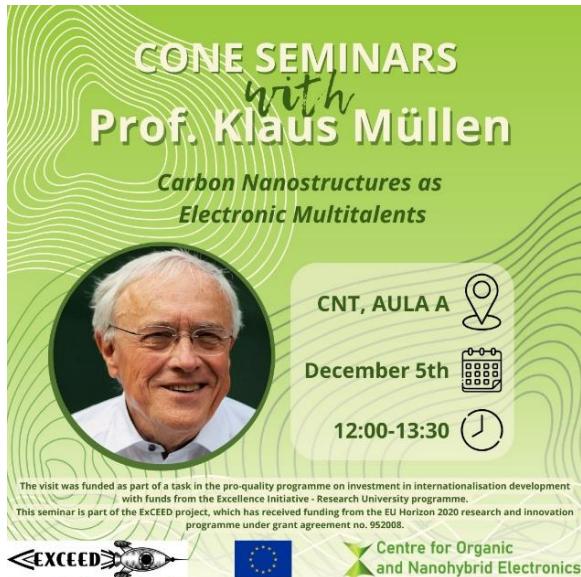
On October 18th, in the Centre for New Technologies (CNT, Konarskiego 22B, Aula B) Prof. Pierre Audebert from ENS Paris-Saclay, France gave a lecture titled: "Tetrazines: An Old Family of Molecules with a Wide Variety of Modern Applications."

Professor Audebert's expertise in supramolecular chemistry and his groundbreaking work on tetrazines inspired and enlightened us all.

On October 31st, in the Centre for New Technologies (CNT, Konarskiego 22B, Aula B) Prof. Hai M. Duong from the National University of Singapore and the University of Cuu Long, Vietnam gave a lecture titled "From Lab to Industry: High-Value Engineering Uses of Aero-Materials from Various Waste Using Sustainable Technologies" During the lecture, Prof. Duong discussed innovative technologies developed by his team to recycle industrial and environmental waste into high-value eco-products, known as eco-aeromaterials. These advancements not only address pressing environmental issues but also offer significant benefits such as energy efficiency, reduced production costs, and lower harmful emissions.



- Guest lecture by Prof. Klaus Müllen



On December 5th, in the Centre for New Technologies (CNT, Konarskiego 22B, Aula A) Prof. Klaus Müllen, a world-renowned scientist and pioneer in the field of chemistry and polymer materials, from the Max Planck Institute for Polymer Research in Mainz, Germany gave a lecture "Carbon Nanostructures as Electronic Multitalents"

Prof. Müllen is the author of over 2,000 research articles with an impressive h-index of 170, reflecting the outstanding impact of his work in the scientific community. His groundbreaking studies on carbon nanostructures and their electronic applications are shaping the future of technology!

OTHER EVENTS

- Researchers' Night at the Silesian University of Technology

In October 2023, the Silesian University of Technology Researchers' Night also featured the active participation of our staff. We presented three interactive stations located next to our Laboratory No. 23 in the Centre for New Technologies building, along with two inspiring lectures:

1. *The Art of Connecting Neurons: How Can We Repair the Brain?* (Dr. Katarzyna Kruckiewicz, Prof. SUT)
2. *Why Is Paper White?* (Dr. Piotr Pander)



- **Witches Week**



We were co-organizers of Witches Week, the forty-third of the 50 Weeks in the City of Science. The event takes place as part of the celebrations of the European City of Science, which run throughout 2024.

During Witches Week, scientist-wizards invite participants to immerse themselves in a magic-filled journey through the latest breakthroughs in chemistry, featuring workshops, live demonstrations, lectures, exhibitions, and an outdoor game. It was a magical week!

[More information on the event website:](https://program.miastonauki.pl/en/witches-week)
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ACHIEVEMENTS

- **Prestigious Award for Professor Sławomir Boncel**

Professor Sławomir Boncel, our project coordinator, was honored with the prestigious **Prof. Jan Czochralski Award** for outstanding scientific and/or applicative achievements. This recognition highlights his extraordinary contributions to science, particularly in the field of: "Physicochemistry of Carbon Nanoallotropes – From Functionalization to Functionality."

Congratulations to Professor Boncel for this well-deserved acknowledgment of his groundbreaking work!





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



- **Professor Sławomir Boncel with The Silesian Scientific Award!!!**

The Silesian Scientific Award is presented every year to those who significantly contribute to the development of science, present outstanding artistic achievements and promote Silesian science on the national and international level

Prof. Boncel received the Silesian Scientific Award in the 'Employees' category.



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