Conference Programme

Tuesday, 23 June 2026

09:00–17:00 — Workshops for Young Scientists
17:00–18:00 — Registration
18:00–21:00 — Culture and Science

Wednesday, 24 June 2026

08:00–09:00 — Registration
09:00–09:20 — Opening ceremony,
Prof. Anna Chrobok, Vice-Rector of the Silesian University of Technology

Session 1

Chair: prof. Stanisław Błażewicz

09:20–10:20 — Gerard L. Vignoles
LCTS, University of Bordeaux, France
A multiscale investigation of the thermomechanical properties of carbon/carbon composites
Invited Lecture

10:20–10:40 — Maciej Gubernat
AGH University of Krakow, Poland
Design and Processing Effects on Degradation Mechanisms of Carbon–Carbon Rocket Nozzles under Operational Conditions

10:40–11:00 — Muhammad Shabbir
University of Silesia in Katowice, Poland
The mechanism of Ca-supported graphitization of banana biomass

11:00–11:20 — Van Hieu Ngo
University of Strasbourg, France
Structural Evolution of Carbon Catalyst for Autocatalytic Methane Decomposition under Induction Heating

11:20–11:50 — Coffee Break

Session 2

Chair: **prof. Anna Boczkowska**

11:50–12:20 — Aleksandra Benko
AGH University of Krakow, Poland
Cytocompatible carbon nanotube nanocomposites for in vitro cell cultures
Keynote Lecture

12:20–12:40 — Ryszard Wielowski
AGH University of Krakow, Poland
Functionalised CNT-modified pyrocarbon composite electrodes: multifunctional performance under simulated conditions for deep brain stimulation application

12:40–13:00 — **Agata Czuk**
AGH University of Cracow, Poland
Comparison of Pyrolytic Carbon Oxidation Techniques for Their Effect on the Electrochemical and Biological Properties of CF/PyC Composites Designed for Neural Cell Stimulation

13:00–13:30 — **Piotr Repeta**
Tokai COBEX – Experts in Carbon Solutions

13:30–14:20 — **Lunch**

Session 3

Chair: prof. Francois Beguin

14:20–15:20 — **Emmanuel Flahaut**
CIRIMAT UMR 5085, CNRS, Université de Toulouse, France
Safety issues of Carbon Nanomaterials: a focus on Graphene Oxide and a Safer-by-design strategy to mitigate its potential impact on Health and the Environment
Invited Lecture

15:20–15:40 — **Sławomir Boncel**
Silesian University of Technology, Poland
From 0D to 3D carbon nanomaterials: ecotoxicity across aquatic trophic levels

15:40–16:00 — **Jarosław Kałużny**
Carbon Nanomaterials as a New Class of Combustible Oil Additives for Two-Stroke Engines

16:00–16:20 — **Quick poster presentations**

Magdalena Małecka — *Silesian University of Technology, Poland*
Application of Nanotechnology in Building Preservation: Innovative Nanocarbon-Enhanced Coatings
Ryszard Siedlecki — *University of Silesia, Poland*
Mechanochemical modification of single-walled carbon nanotubes
Łukasz Czapura — *Silesian University of Technology, Poland*
Targeted isolation and modification of single-walled carbon nanotubes
Cosmos Uzoma — *Silesian University of Technology, Poland*
Tuning Fluorene-Based Polymers for Chirality-Selective Extraction of SWCNTs
Paweł Binkowski — *Nicolaus Copernicus University in Toruń, Poland*
Sponde carbon electrode – the impact of the carbonization process
Karolina Kordek-Khalil — *Wrocław University of Science and Technology, Poland*
Carbon nanostructures growth on waste mineral powder grains for preparation of functional concrete
Irina Ceban — *Institute of Chemistry of Moldova State University, Republic of Moldova*
Synthesis and structural characterization of TiO2-modified nanostructured activated carbons derived from agricultural wastes

16:20–18:00 — **Poster session**
In parallel, the PCS Board Meeting will take place starting at 17.00.

18:00–21:00 — **Spirala**

Thursday, 25 June 2026

Session 4

Chair: prof. Paweł Szroeder

09:00–10:00 — **Elżbieta Frąckowiak**
Poznan University of Technology, Poland
Carbon materials for energy storage systems working in aqueous and organic medium
Invited Lecture

10:00–10:20 — **Bastien Raschetti**
Poznan University of Technology, Poland
Uncovering the Charge Storage Mechanism of Carbon Electrode in Sodium-Ion Capacitors via Operando Techniques

10:20–10:40 — **Akshita Singh**
Université de Strasbourg / IIT Roorkee, France / India
Waste valorization for synthesizing carbon/graphene composites for supercapacitors

10:40–11:00 — **Amelia Klimek**
Poznan University of Technology / IS2M, Poland / France
Effect of N-Carbon Quantum Dots on Charge Storage in Electrochemical Capacitors

11:00–11:30 — **Coffee Break**

Session 5

Chair: prof. Mirosława Pawlyta

11:30–12.30 — Rosa Menéndez López
Instituto de Ciencia y Tecnologia del Carbono – CSIC, Oviedo, Spain
State of the art and future perspectives of traditional carbon materials and new carbon forms (on line)
Invited Lecture

12.30–12.50 — Daria Minta
Wrocław University of Science and Technology, Poland
Three-in-one, integrated, inkjet-printed electrode for electrochemical sensing applications

12.50–13.10 — Bartosz Gurzęda
Helmholtz-Zentrum Dresden-Rossendorf / Poznan University of Technology / Umea University
Oscillating structural transformations in the electrochemical synthesis of graphene oxide from graphite

13:10–13.30 — Paulina Latko-Durałek
Warsaw University of Technology, Poland
Characterization of electrically conductive copolyester hot-melt adhesive containing carbon nanotubes and carbon black

13:30–14:20 — **Lunch**
14:20–14:50 — **Bus transfer to Zabrze, Guido Mine**
15:00–17:05 — **Guido Mine visit, we will tour the mine in three groups:**
15:00 - 16:45 Group I tour – maximum 24 people;
15:10 - 16:55 Group II tour – maximum 24 people;
15:20 - 17:05 Group III tour – maximum 24 people.
17:15–17:45 — **Bus transfer to Gliwice city center**

17:45–19:30 — **Free time**
19:30–22:00 — **Conference gala (Hotel Royal, Gliwice, 10 Matejki Street)**

Friday, 26 June 2026

Session 6

Chair: prof. Sławomir Boncel

09.00–09.30 — Narayan N. Som
Warsaw University of Technology, Poland
Atomistic Investigation of Nitrogen-Doped Carbon Nanotube Growth and Structural Evolution from Pyridine and Pyrazine Precursors
Keynote Lecture

09.30–09.50 — Zunaira Amjad
Silesian University of Technology, Poland
An overview of "Not-to-nanotube-itself" functionalization strategies

09.50-10.10 — Szymon Ruczka
Silesian University of Technology, Poland
Differences in Morphology of Carbon Nanotubes for Tribological Application

10.10-10.30 — Jakub Ćwiertnia
Silesian University of Technology, Poland
Relation between partitioning process of single-walled carbon nanotubes and hydrophobic-hydrophilic interactions in aqueous two-phase systems

10:30–11:00 — **Coffee Break**

Session 7

Chair: prof. Aneta Frączek-Szczypta

11:00–11:30 — **Marcel Zambrzycki**
AGH University of Krakow, Poland
Carbon nanofiber nonwoven as potential back electrode contact for perovskite solar cells: Effect of heat treatment temperature on structure and electrical conductivity
Keynote Lecture

11:30–11:50 — **Barbara Szczęśniak**
Military University of Technology, Warsaw, Poland
Adsorption of Volatile Organic Compounds on Graphene-Containing Carbons

11:50–12:10 — **Beatriz Italia De La Toba Acevedo**
Wroclaw University of Science and Technology, Poland
The Influence of Iron Nanoparticles Distribution on the Magnetic Properties of Carbonaceous Adsorbents Obtained from Mixtures of Different Iron Salts and Polymers

12:10–12:30 — **Lidia Mosińska**
Kazimierz Wielki University in Bydgoszcz, Poland
The influence of diamond doping and nanomodification on the sensory properties of electrodes

12:30–12:50 — **Closing ceremony**
12:50–14:00 — **Lunch**

Poster session

1. **Muhammad Ahsaan Bari** — UV light-controlled Graphene oxide modification using photoswitchable molecules
2. **Przemysław Ziółkowski** — Electrochemical deposition of poly[ethylene-dioxythiophene] (PEDOT) films on graphene nanoplatelet films
3. **Patrycja Wąsik** — Characterisation of biochar after interaction with products of biomass thermochemical conversion
4. **Anna Blacha** — Covalent Network Formation in Carbon Nanotubes Using S-Tetrazine Chemistry
5. **Monika Tarnowska** — Fluorine-Modified Carbon Nanotubes for Superhydrophobic and Anti-Icing Coating Applications
6. **Iolanta Balan** — DFT study of [AC-PAH] complex
7. **Raisa Nastas** — TiO2-carbon composites derived from peach stones activated carbons: synthesis, characterization and application
8. **Rupinder Kaur** — 'Nanotubium-Nanotubate': From Van der Waals bundles to 'Io-NanoHybrids'
9. **Paweł Szroeder** — Direct electron transfer between sp2-bonded carbons and adsorbed aromatic molecules
10. **Paweł Binkowski** — Sponge carbon electrode - the impact of the carbonisation process
11. **Paweł Kubica-Cypek** — Backbone Engineering and Post-Synthetic Modulation of Fluorene-Based Copolymers for Monochiral SWCNT Isolation
12. **Cosmos Uzoma** — Tuning Fluorene-Based Polymers for Chirality-Selective Extraction of Large-Diameter SWCNTs
13. **Beatriz Italia De La Toba Acevedo** — Iron Nanoparticle-Functionalized Magnetic Biochar for Isoproturon and Cr(VI) Adsorption Kinetics
14. **Adam Moyseowicz** — Influence of Nitrogen Sources on N-Doped Reduced Graphene Oxide Aerogels for Efficient Neutral Aqueous Symmetric Supercapacitors
15. **Natalia Mazurczak** — Balancing Sun Protection and Environmental Safety: A Carbon-Based Approach to UV Filter Removal
16. **Adam Zabrowarny** — 3D-printing wastes derived TPU/GO membranes: toward compact real-time water quality monitoring devices
17. **Adam A. Marek** — Metal-Functionalized CNTs for Enhanced Lithium Grease Lubricity
18. **Piotr Adamczyk** — Synthesis and Physicochemical Properties of Biochar@Graphene Oxide Carbon Composites

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