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**

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
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
Karolina Kordek-Khalil — *Wrocław University of Science and Technology, Poland*
Carbon nanostructures growth on waste mineral powder grains for preparation of functional concrete
Łukasz Czapura — *Silesian University of Technology, Poland*
Targeted isolation and modification of single-walled carbon nanotubes

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. Grażyna Gryglewicz

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
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