



ChemOnTubes 2026

J. Heyrovsky Institute of Physical Chemistry, Brdička lecture hall, ground floor

Program

SUNDAY 12th April

15:00 Registration
17:00 **Opening:** Martin Kalbáč

Session 1 Chair: M. Kalbáč

17:15 **Invited Opening talk: A. Bianco:** Functional Carbon Nanodots for Localized Antibiotic Delivery
18:00 **M. Pelin:** 2D Materials Beyond Graphene: Safety Issues at the Bio-interface with the Skin
18:30 **Welcome Buffet**

MONDAY 13th April

Session 2 Chair: E. Vázquez

- 9:30 **Invited talk: D. Guldi:** Carbon Dots in Action: Advancing from Dye-Sensitized Solar Cells to Photocatalysis
- 10:15 **A. Zabin:** Carbon Nanostructures-based Nanoarchitected Materials for Sustainable Energy-storage Devices
- 10:35 **M. Shaffer:** Uniform and Scalable Carbon Nanotube Growth on Carbon Fibres
- 10:55 **Y. Li:** Controllable Functionalization of Single-Walled Carbon Nanotubes with Bases to Create Luminescent sp³ Defects
- 11:15 **Coffee break**

Session 3 Chair: E. Vázquez

- 11:45 **Invited talk: N. Martín:** Beyond Flatland: Chirality in Bilayer Nanographenes
- 12:30 **A. Adronov:** Efficient Methods for Derivatization of Complexes Between Carbon Nanotubes and Conjugated Polymers
- 12:50 **F. Torrisi:** Printed Highly-sensitive Ammonia Gas Sensor Arrays Based on Carbon Nanotube and Molybdenum Disulphide Heterojunctions
- 13:10 **Y. P. Sun:** On Shared Optical and Photoexcited State Properties of Carbon Nanoparticles, Nanotubes, and Nanosheets – Opportunities and Challenges
- 13:30 **Lunch**

Session 4 Chair: D. Guldi

- 15:00 **E. Vázquez:** Graphene Hybrid Hydrogels as 4D Biomimetic Systems
- 15:20 **T. Serodre:** Coupled Visible and Near Infrared Spectroscopy Monitoring of Anticancer Drug Adsorption on Single-walled Carbon Nanotubes
- 15:40 **M. Tarnowska:** Fluorinated Carbon Nanotubes as Components of Superhydrophobic Anti-icing Coatings
- 16:00 **X. Chen:** Recycling Waste Plastics into Porous Carbon and Applications in Energy Storage
- 18:15 **Departure of charter bus from the J. Heyrovský Institute to Castle Liblice, Banquet**

TUESDAY 14th April

Session 5 Chair: M. Shaffer

- 9:30 **Invited talk: J. Zaumseil:** Luminescent Defects in Single-Wall Carbon Nanotubes: Chemistry & Applications
- 10:15 **M. Ahlskog:** Capillary Ordered Multiwalled Carbon Nanotubes at the Air-Water Interface
- 10:35 **V. Andreeva:** One-pot Incorporation of Quantum Defects into Single-walled Carbon Nanotubes
- 10:55 **S. Boncel:** CNT Nanofluids and Nanogreases: from Interface Engineering to Multifunctional Transport, Storage, and Dissipation Phenomena
- 11:15 **Coffee break**

Session 6 Chair: M. Shaffer

- 11:45 **Invited talk: E. M. Perez:** A Molecular Design for Optimal Load Transfer in SWCNT-polymer Composites
- 12:30 **J. M. Gonzalez Dominguez:** Carbon Nanotubes Processing with Green Nanomaterials: From Aqueous Inks to Functional Films and Electrodes
- 12:50 **D. Janas:** Tailoring Optical Properties of Monochiral Single-walled Carbon Nanotubes Through Covalent Modification
- 13:10 **V. Jourdain:** Interplay of Substrate Adhesion, Axial Strain and Doping in the Raman Response of Metallic Carbon Nanotubes Grown on Single-Crystal Quartz
- 13:30 **Lunch**

Session 7 Chair: A. Zarbin

- 15:00 **J. Sloan:** Encapsulated Halide Perovskites: Fundamentals of Crystal Chemistry at the Structural Limit
- 15:20 **S. Sandoval:** Synthesis of Unprecedentedly Large Diameter Single-Walled Inorganic Nanotubes Confined within 1D Carbon Nanostructures
- 15:40 **S. Maruyama:** Inside and Outside Modifications of Single Walled Carbon Nanotubes
- 16:00 **Coffee break**

Session 8 Chair: A. Zarbin

- 16:30 **Ch. Liu:** Preparation and Properties of Carbon Nanotube Fiber/Film-based Hybrids
- 16:50 **F. Li:** Single-Wall Carbon nanotube: Revolutionizing Lithium Ion Battery Performance
- 17:10 **K. Kobashi:** Universal Structural Analogy among As-Grown and Purified Commercialized Carbon Nanotubes
- 17:45 **Poster session**

WEDNESDAY 15th April

Session 9 Chair: J. Vejpravova

- 9:30 **Invited talk: K. Matsuda:** Advanced Robotic Fabrication of Two-dimensional Semiconductor and its Application for Quantum Optics
- 10:15 **O. Volochanskyi:** Chain-Locked Linear Dichroism and Indirect Band Gap in AgCrP₂S₆
- 10:35 **A. M. Rodríguez Garcia:** Engineering 2D Hybrid Nanomaterials with Metal Nanoparticles for High-Performance PEM Hydrogen Production
- 10:55 **G. Yang:** Self-assembly of Carbyne Nanocrystals based on Laser Ablation in Liquids
- 11:15 **Coffee break**

Session 10 Chair: J. Vejpravova

- 11:45 **Invited talk: P. Kusch:** Correlative Characterization of Molecular Two-dimensional van der Waals Material Heterostructures on the Nanometer Scale
- 12:30 **R. Kesarwani:** Engineering Optical Anisotropy and Chiroptical Response in Rolled Monolayer MoS₂ Nanotube-Like Architectures
- 12:50 **D. Bouilly:** Gate-Controlled Chemical Reactions on Graphene Field-Effect Transistors
- 13:10 **R. Pandey:** Nonlinear Optical Properties of Graphene-based Structures
- 13:30 **Lunch**

Session 11 Chair: A. Bianco

- 15:00 **Invited talk: E. Orgiu:** Engineering Charge and Magnetotransport in Quantum Materials by means of Supramolecular 2D Assemblies: Hybrid van der Waals Heterostructures
- 15:45 **R. Menzel:** Hierarchical Graphene Foams as Nanocatalyst Supports for Chemical Transformations in Flow
- 16:05 **R. Ayash:** Synthesis and Optical Properties of a Water-soluble Graphene Quantum Dots

THURSDAY 16th April

Session 12 Chair: W. Maser

- 9:30 **Invited talk: B. C. Bayer:** Realizing Scalable Chemical Vapour Deposition of Monolayer Graphene Films on Iron with Concurrent Surface Hardening by in situ Observations
- 10:15 **J. Varillas:** Atomistic Simulations of Resonance and Dissipation in Monolayer Graphene Nanodrums
- 10:35 **O. Regev:** Stop the Heat! Graphene-Hybrid Coatings Solve the PCB Thermal Challenge
- 10:55 **H. Otsuka:** Graphene-Zeolite Interfacial Nanochannels for Ultrafast Air Separation
- 11:15 **Coffee break**

Session 13 Chair: W. Maser

- 11:45 **G. Van Kerckhove:** Importance of Exposure Assessment Along Life Cycle of Nanocomposites
- 12:05 **C. Martínez-Barón:** Porous Carbon Nanotube Films as Versatile Substrates for TiO₂ Photoelectrodes
- 12:25 **E. Souza Orth:** Does the Functionalization Position on Graphene Oxide Matters? Disclosing Catalytic Trends
- 12:45 **Conclusion**
- 13:00 **Lunch**