J. Heyrovský Institute of Physical Chemistry

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**

Hotel Duo · Metrohm Česká republika · SpecIOn · Café - Restaurant Troja Hotel

J. Heyrovský Institute of Physical Chemistry

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. Zarbin:** 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**

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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. Bianco**

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. Bianco**

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 $AgCrP_2S_6$

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 MoS_2 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. Zarbin**

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

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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 TiO_2 Photoelectrodes
12:25	**E. Souza Orth:** Does the Functionalization Position on Graphene Oxide Matters? Disclosing Catalytic Trends
12:45	**Conclusion**
13:00	**Lunch**