

The conference takes place from May 19th to May 23rd, 2025 in Hotel Bellevue in Jetřichovice. Registration and accommodation start on May 19th, 2025 from 16.00 in the hotel. Boarding and accommodation are provided at the conference venue.

SCIENTIFIC GUARANTEES

Prof. Dr. Ing. Tomáš Navrátil

J. Heyrovsky Institute of Physical Chemistry of the Czech Academy of Sciences, Prague

Assoc. Prof. RNDr. Miroslav Fojta, CSc.

Institute of Biophysics of the Czech Academy of Sciences, Brno

Assoc. Prof. RNDr. Karolina Schwarzová, Ph.D.

UNESCO Laboratory of Environmental Electrochemistry, Department of Analytical Chemistry, Faculty of Science, Charles University, Prague



FACULTY OF SCIENCE
Charles University

CONFERENCE SPONSORS



ORGANIZING GUARANTEE

Lenka Srsenová - BEST servis

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J. Heyrovský Institute of Physical Chemistry of the Czech Academy of Sciences, Prague

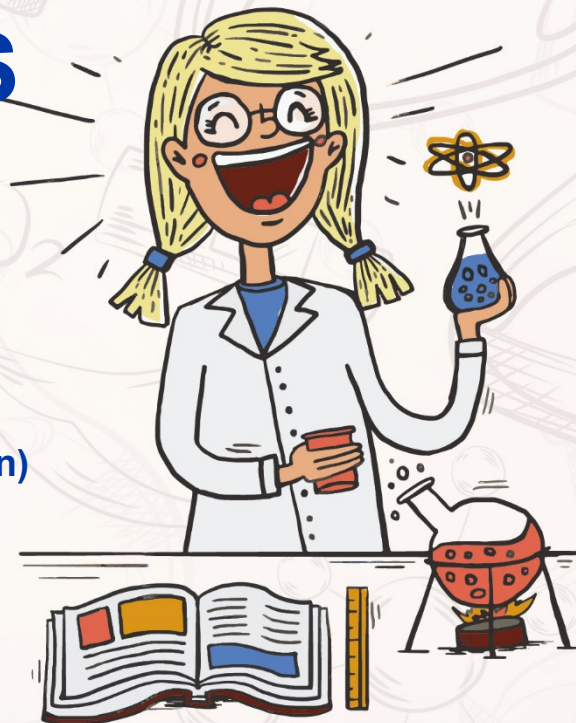
Institute of Biophysics of the Czech Academy of Sciences, Brno

Department of Analytical Chemistry, Faculty of Science, Charles University, Prague

PROGRAM OF THE INTERNATIONAL CONFERENCE

44th MODERN ELECTROCHEMICAL METHODS

May 19th - May 23th, 2025
Jetřichovice (district Děčín)
Czech Republic



CONFERENCE PROGRAM

MONDAY, May 19th

- 16.00** REGISTRATION AND ACCOMMODATION OF THE PARTICIPANTS
17.00 WELCOME MESSAGE TO CONFERENCE PARTICIPANTS
18.00 DINNER

TUESDAY, MAY 20st

- 8.00** BREAKFAST
9.00 OPENING SESSION

9.15 – 10.30 BLOCK 1 – Chairperson T. Navrátil

- 9¹⁵- 9³⁰ **Electrochemistry of Selected Boron Heterocycles**
T. Mikysek and P. Šimůnek
- 9³⁰- 9⁴⁵ **Boron-Doped Diamond Electrode Modified With Platinum Nanoparticles**
O. Matvieiev, R. Šelešovská, D. Kamarád, M. Vojs, M. Marton
- 9⁴⁵-10⁰⁰ **Electrochemical and Structural Characterization of WS₂ Layers on Boron-Doped Diamond Electrodes: Influence of Thickness and Thermal Treatment**
M. Vojs, J. Ostojic, N. Kumar, I. Hotovy, P. Michniak, A. Vojs Staňová, and M. Marton
- 10⁰⁰-10¹⁵ **Modification of BDD Surface by Electrochemical Grafting of GBC Salt**
P. Čambal, T. Štěpánová, K. Hubčuková, and K. Schwarzová-Pecková

10.15 – 10.30 COFFEE BREAK

10.30 – 12.00 BLOCK 2 – Chairperson P. Čambal

- 10³⁰-10⁴⁵ **Electrochemical Properties of Flow-Through Boron Doped Diamond Electrodes of Different Porosity**
H. Dejmková, A. Taylor, P. Hrbková, and K. Schwarzová-Pecková
- 10⁴⁵-11⁰⁰ **Development of Electrochemical Degradation Reactors**
J. Fischer, M. Šefčík, L. Pražáková, M. Zich, P. Lochyński, A. Taylor, and K. Schwarzová-Pecková

- 11⁰⁰-11¹⁵ **The Efficiency of Carbon-Based Platforms for the Electrochemical Removal of the Selected Drugs**
V. Svitková, K. Nemčková, A. P. Drdanová, Z. Imreová, A. Tulipánová, T. Homola, F. Zažímal, S. Debnárová, A. Stýskalík, J. Ryba, L. Bača, M. Malček Šimunková, M. Gál, T. Mackulák, and A. Vojs Staňová

- 11¹⁵-11³⁰ **Oxidative Grafting of Boron-Doped Diamond Electrode for Development of a Biosensor for Activity Monitoring of Alkaline Phosphatase**
E. Švárová, J. Poláková, J. Fischer, A. Taylor, and K. Schwarzová Pecková

- 11³⁰-11⁴⁵ **Indirect Voltammetric Determination of Acidity of Vegetable Oils**
M. Vaško and R. Bodor

- 11⁴⁵-12⁰⁰ **Electrochemical Determination of Cocoa Content in Chocolates**
A. Frangu, L. Červenka, K. Kalcher, and M. Sýs

12.00 – 14.00 LUNCH

14.00 – 15.15 BLOCK 3 – Chairperson K. Schwarzová

- 14⁰⁰-14¹⁵ **Combining Hollow Fibre Microextraction with Square Wave Voltammetry at Screen-Printed Boron-Doped Diamond Electrodes for Determination of Trazodone in Urine**
O. Labzova, V. Hrdlička, T. Navrátil, and R. Šelešovská
- 14¹⁵-14³⁰ **The Highly Effective and Environmentally Friendly Removal of Citalopram from Wastewater Using Boron-Doped Diamond Electrodes**
A. Vojs Staňová, L. Hojová, L. Schreiber, M. Vojs, R. Grabic, J. J. S. Rodríguez, and M. Marton
- 14³⁰-14⁴⁵ **Electrochemical Oxidation and Voltammetric Determination of Triazole Fungicides**
R. Šelešovská, O. Matvieiev, J. Chýlková, R. Sokolová, and K. Schwarzová-Pecková
- 14⁴⁵-15⁰⁰ **Novel Analytical Approach for Voltammetric Determination of Thiophthalimide Fungicides Captan And Folpet in Non-Aqueous Electrolytes**
J. Vobořil, L. Janíková, L. Žemlová, M. Ševčík, O. Matvieiev, and R. Šelešovská

15⁰⁰-15¹⁵ **Electrochemistry of Galectin Ligands**
M. Zelinka, L. Žaloudková, P. Šebest, V. Hamala, J. Karban, V. Ostatná, and A. Daňhel

15.15 – 15.30 COFFEE BREAK

15.30 - 17.15 BLOCK 4 – Chairperson M. Vaško

15³⁰-15⁴⁵ **Biolng, s.r.o.**
I. Kubiš

15⁴⁵-16⁰⁰ **Get to Know METROHM**
P. Barath and M. Stočes

18.00 DINNER

WEDNESDAY, May 21st

8.00 BREAKFAST

9.00 – 10.15 BLOCK 5 – Chairperson M. Fojta

9⁰⁰- 9¹⁵ **Redox Chemistry of Molecular Motors**
Ch. Bruggeman, J. Kaleta, J. Ludvik, L. Severa, J. Sochor, L. Šimková, J. Klíma, and L. Koláčná

9¹⁵- 9³⁰ **Isomerism of Mono- and Dinuclear Copper(II) Complexes with Phenolate-Substituted Cyclam Ligands – Electrochemical Study**
L. Koláčná, J. Šrein, M. Maďar, J. Ludvík, and V. Kubíček

9³⁰- 9⁴⁵ **In-situ Fluorescence Spectroelectrochemistry of Dyes**
M. Beneš, R. Sokolová, D. Swoboda, S. Pizzimenti, F. Sabatini, L. Dostálková, J. Nycz, and I. Degano

9⁴⁵-10⁰⁰ **Electrochemical Properties of Synthetic Selaginpulvilins and their Voltammetric Determination**
L. Dostálková, K. Schwarzová-Pecková, L. Rýček, and R. Sokolová

10⁰⁰-10¹⁵ **Comprehensive Single Molecule Conductance Studies of the Anthracene-Anthraquinone Redox-Active Molecular Switch**
M. Hromadová, F. Vavrek, J. Šebera, J. Fiedler, J. Gasior, G. Mészáros, and M. Valášek

10¹⁵-10³⁰ **Redox-active Molecular Switches: Diarylethenes with Naphthoquinone Bridge**
S. Boháčová

10.30 – 10.45 COFFEE BREAK

10.45-12.00 BLOCK 6 – Chairperson L. Dostálková

10⁴⁵-11⁰⁰ **Spectroelectrochemical Sensing of Electrogenerated Chlorine Dioxide**
O. Dakošová, E. Vaněčková, M. Gál, and V. Kolivoška

11⁰⁰-11¹⁵ **UV-Vis and Fluorescence Spectroelectrochemistry on 3D-Printed Electrodes**
T. Sebechlebská, M. Hurajtová, Z. Sándor, Á. Kapdos, S. Vesztergom, and V. Kolivoška

11¹⁵-11³⁰ **3D-Printed Electrodes in Thermoelectrochemical Applications**
G. Mydla, E. Vaněčková, Z. Sándor, Á. Kapdos, S. Vesztergom, V. Kolivoška, and T. Sebechlebská

11³⁰-11⁴⁵ **Gas Diffusion Electrodes for Efficient Electrocatalytic Reduction of Carbon Dioxide**
E. Vaněčková, V. Hrdlička, L. Dostálková, R. Pilař, P. Sazama, G. Sádovská, U. Khalilullah, V. Petráková, M. Bouša, and V. Kolivoška

12.00 LUNCH

13.00 TRIP

19.00 DINNER

THURSDAY, MAY 22nd

8.00 BREAKFAST

9.00 – 10.15 BLOCK 7– Chairperson J. Baráček

9⁰⁰- 9¹⁵ **Cyclic Voltammetric Characterisation of Ferrocene/Ferrocenium Redox Couple in Aqueous Media**
V. Dorčák, J. Hrbáč, J. Janata, and J. Vacek

9¹⁵- 9³⁰ **Oxidation and hydrophobicity of 3,5-dihydroxy-4-isopropylstilbene and its analogs**
J. Vacek, M. Zatloukalova, and P. Kosina

9³⁰- 9⁴⁵ **Cysteamine and Cysteine Redox Behaviour at Charged Mercury|Solution Interfaces**
V. Dorčák and Jan Vacek

9⁴⁵-10⁰⁰ **70 years of Bioelectrochemistry at the Institute of Biophysics of the CAS**
M. Fojta and M. Hermanová

10⁰⁰-10¹⁵ **Electrochemical Monitoring of G4-hindered Primer Extension Reaction**
M. Hermanová, L. Havran, and M. Fojta

10¹⁵-10³⁰ **Electrochemical Detection of Ergosterol by Square-Wave Voltammetry for Screening in Mold-contaminated Food**
D. Novák, I. Brožková, M. Sýs, M. Vojs, T. Mikysek, and L. Korecká

11⁴⁵-12⁰⁰ **Investigation of a High-Entropy Alloy from Non-Critical Materials for Enhanced Water Splitting**
M. Paračková, R. Oriňáková, and M. Strečková

10.30 – 10.45 COFFEE BREAK

10.45 – 12.00 BLOCK 8 – Chairperson D. Novák

10⁴⁵-11⁰⁰ **Precipitating Estrogens: Azo Coupling as a Selective Capture Strategy**
J. Bartáček, J. Chýlková, and M. Sedlák

11⁰⁰-11¹⁵ **Harnessing Surface Plasmon Resonance to Assess Antigen-Antibody Interactions in Immunosensor Design**
L. Korecká, D. Novák, O. Morávek, G. Kastrati, and N. Matějková

11¹⁵-11³⁰ **Characterization of Exfoliated Graphitic Carbon Nitride by Electrochemical Impedance Spectroscopy**
O. Mušálek, K. Foniok, and V. Matějka

11³⁰-11⁴⁵ **Corrosion Behavior of Currently Proposed Biodegradable Bone Materials**
L. Trnková, M. Sedlaříková, S. Bátorová, M. Zatloukal, P. Vanýsek, and P. Slotová

12.00 LUNCH

14.00 – 15.15 BLOCK 9 Chairperson O. Mušálek

14⁰⁰-14¹⁵ **Biomimetic Activity of Selected Copper Complexes**
M. Bártová and T. Mikysek

14¹⁵-14³⁰ **Simultaneous Electrochemical Detection of Crocin and Safranin**
M. Bínová and R. Metelka

14³⁰-14⁴⁵ **Nano-Modified Screen-Printed Electrode for Cholesterol Determination**
F. Chovancová and I. Šišoláková

14⁴⁵-15⁰⁰ **Using a Commercial Electroanalytical Probe to Determine N₂O in Wastewater**
D. Fischerová, L. Charvátová, and M. Srb

15¹⁵-15³⁰ **Development of Flow-Through Electrochemical Cell RaFEC for Oxidation State Adjustment of Superheavy Elements Homologues**
J. Sochor, M. Němec, P. Bartl, V. Hrdlička, T. Navrátil, V. Zach, J. Štursa, J. P. Omtvedt, and J. John

15.30 – 15.45 COFFEE BREAK

15.45 – 16.30 BLOCK 10 Chairperson T. Navrátil

15⁴⁵-16¹⁰ **International Society of Electrochemistry**
T. Navrátil

16¹⁰-16³⁰ **ChemistryEurope - Czech Chemical Society**
T. Navrátil

18.00 DINNER

FRIDAY, MAY 23rd

9.00 – 11.00 BLOCK 11 Chairperson T. Navrátil

8.00 BREAKFAST

9⁰⁰ - 9¹⁵ **Dead-End Separation to Isolate and Concentrate Non-Volatile Organic Pollutants from Water**
J. Chýlková, J. Kudláčková, J. Cuhorka, and P. Mikulášek

9¹⁵ - 9³⁰ **Analytical Evaluation of Antioxidant Properties of Homemade Herbal Rice Wines using FIA-ECD and FTIR-ATR**
K. Šamajová, P. Kučerová, N. Kubičínová, and J. Weinlich

9³⁰ - 9⁴⁵ **Voltammetric Analysis of Piperine in Pepper**
M. Čajkovská, P. Barták, and J. Skopalová

9⁴⁵ - 10⁰⁰ **Asbestos Use - Benefits and Risks**
T. Navrátil, V. Hrdlička, V. Lipšová, B. Kotlík, S. Zacharov, and K. Mrázová

10⁰⁰-10¹⁵ **Electrochemical Characterization of Self-Assembled Monolayers of Ru(Terpyridine)₂²⁺ Transition Metal Complexes**
J. Kocábová, Š. Nováková Lachmanová, M. Valášek, and M. Hromadová

10⁰⁰ - 11⁰⁰ **Discussion/Commercial Messages**

11.00 CLOSING CEREMONY

11.15 LUNCH

Presentation 10 min. + Discussion 5 min.