

The conference takes place from May 20th to May 24th, 2019 in hotel Bellevue in Jetřichovice. Registration and accommodation starts on May 20th, 2019 from 16.00 in the hotel. Boarding and accommodation is provided at the conference venue.

SCIENTIFIC GUARANTEES

Assoc. 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

RNDr. Karolina Schwarzová, Ph.D.

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



CONFERENCE SPONSORS



ORGANIZING GUARANTEE

Lenka Srsenová - BEST servis

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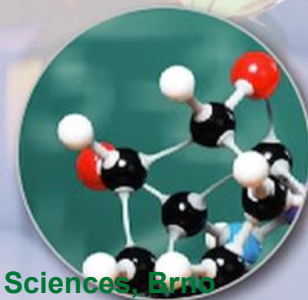
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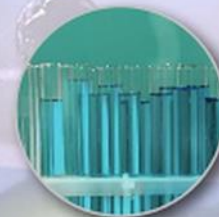
MODERN ELECTROCHEMICAL METHODS

CONFERENCE PROGRAM

J. Heyrovský Institute of Physical Chemistry of the Czech Academy of Sciences, Prague
Institute of Biophysics of the Czech Academy of Sciences, Brno
UNESCO Laboratory of Environmental Electrochemistry, Department of Analytical Chemistry, Faculty of Science, Charles University, Prague
BEST servis Ústí nad Labem



May 20th - May 24th, 2019
Jetřichovice near Děčín
Czech Republic



MONDAY May 20TH

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

TUESDAY MAY 21ST

- 8.00 BREAKFAST
8.45 OPENING SESSION
L. Srsenová, M. Fojta, T. Navrátil, and K. Schwarzová

9.00 – 10.30 BLOCK 1 – Chairperson T. Navrátil

- 9⁰⁰- 9¹⁵ **Mercury Electrodes in Biomacromolecule Research of 21st Century: Still Unbeatable?**
M. Fojta
- 9¹⁵- 9³⁰ **Accumulation of Mercury Ions in Homothymine Stretches of DNA: A Voltammetric Study**
M. Hermanová, H. Pivoňková, Z. Bábková, and M. Fojta
- 9³⁰- 9⁴⁵ **Electrochemical Study of Selected G4 Ligands and Their Interaction with Oligonucleotides**
D. Dobrovodský, J. Malíková, A. Daňhel, and M. Fojta
- 9⁴⁵-10⁰⁰ **New Possibilities in DNA Electroactive Labelling**
L. Havran, P. Havranová, M. Hermanová, M. Trefulka, L. Fojt, and M. Fojta
- 10⁰⁰-10¹⁵ **Indirect Detection of DNA Damage at Silver Solid Amalgam Electrodes**
V. Svítková, J. Labuda, and V. Vyskočil
- 10¹⁵-10³⁰ **Effect of Silver Nanoparticles towards DNA via Formation of Reactive Oxygen Species**
K. Nemčková, J. Sochr, and J. Labuda

10.30 -10.45 COFFEE BREAK

10.45 – 12.15 BLOCK 2 – Chairperson M. Fojta

- 10⁴⁵-11⁰⁰ **Electrochemical and Spectral Analysis of Cytosine-rich Nonamers**
I. Tříšková, L. Trnková, I. Kejnovská, and M. Vorlíčková
- 11⁰⁰-11¹⁵ **Voltammetry at Silica Gel-Modified Carbon Paste Electrode**
I. Šestáková and T. Navrátil
- 11¹⁵-11³⁰ **Manufacture of Patterned Copper Foam Electrodes Employing 3D Printed Masks**
E. Vaněčková, T. Sebechlebská, V. Shestivska, and V. Kolivoška
- 11³⁰-11⁴⁵ **Electrochemical Investigation of Polylactic Acid/Carbon Black Composite Filament for the Manufacture of 3D Printed Electrodes**
T. Sebechlebská, E. Vaněčková, V. Shestivska, and V. Kolivoška
- 11⁴⁵-12⁰⁰ **Preparation and Characterization of Silver Amalgam Particles on Screen Printed Silver Electrodes Surface**
P. Havranová, L. Fojt, M. Fojta, and A. Daňhel
- 12⁰⁰-12¹⁵ **Modification of Screen Printed Electrodes using Spark Discharge**
J. Hrbáč, M. I. Prodromidis, M. G. Trachioti, E. I. Tzianni, and D. Říman
- 12.15 -14.00 LUNCH

14.00 – 15.45 BLOCK 3 – Chairperson Š. Nováková Lachmanová

- 14⁰⁰-14¹⁵ **Boron Doped Diamond Electrodes: the Effect of Hierarchical Nanostructuring**
M. Vojs, V. Řeháček, A. Vojs Staňová, E. Medvecká, M. Behúl, P. Michniak, P. Škvára, and M. Marton
- 14¹⁵-14³⁰ **Boron-Doped Diamond Microelectrodes Fabricated by Microwave Plasma Enhanced Chemical Vapour Deposition Process with Linear Antenna Delivery**
M. Brycht, J. Vosáhllová, K. Schwarzová-Pecková, A. Taylor, L. Klimša, J. Kopeček, I. Dittert, and J. Krůšek

- 14³⁰-14⁴⁵ **Influence of TiO₂ Thickness on PEC Properties of BDD/TiO₂ Electrodes**
M. Behúl, M. Vojs, M. Marton, P. Michniak, M. Kurniawan, H.-L. Honig, D. Zhabkin, M. O. Ramirez, and A. Bund
- 14⁴⁵-15⁰⁰ **BDD Electrodes for Electrochemical Degradation of Selected Pharmaceuticals**
E. Medvecká, M. Vojs, M. Marton, P. Michniak, R. Grabic, and A. Vojs Staňová
- 15⁰⁰-15¹⁵ **Electrochemical Oxidation of Phytosterols at Carbon-based Electrode Materials**
K. Jelšíková, M. Zelenský, and K. Schwarzová-Pecková
- 15¹⁵-15³⁰ **Voltammetric Determination of Cholic and Chenodeoxycholic Acids in Artificial Serum**
J. Klouda, J. Berek, K. Nesměrák, and K. Schwarzová-Pecková
- 15³⁰-15⁴⁵ **Voltammetry of cholesterol and its precursor 7-dehydrocholesterol on boron doped diamond electrode**
L. Benešová, P. Yershova, and K. Schwarzová-Pecková
- 15.45 -16.00 COFFEE BREAK

16.00 – 18.00 BLOCK 4 – Chairperson L. Benešová

- 16⁰⁰-16¹⁵ **Boron-Doped Diamond Electrodes: The Role of Doping Level and Surface Treatment in the Electrooxidation of m-Cresol**
S. Baluchová, M. Nedvěd, J. Vosáhlová, A. Taylor, V. Mortet, and K. Schwarzová-Pecková
- 16¹⁵-16³⁰ **Anodic Oxidation of 2-Iodobenzoic and 2-Iodosobenzoic Acid at Boron-Doped Diamond Anode**
T. Bystron, A. Alexanderova, and B. Devadas
- 16³⁰-16⁴⁵ **On UV-Vis Spectroelectrochemistry of Luteolin-7-O-Glucoside**
A. G. Castano, R. Sokolová, and I. Degano
- 16⁴⁵-17⁰⁰ **Monatshefte für Chemie - Special Issue(s)**
T. Navrátil

- 17⁰⁰-17²⁵ **Get to know METROHM**
P. Barath
- 17²⁵-17⁵⁰ **Remembering prof. Karel Vytrás**
I. Švancara
- 18.00 DINNER

WEDNESDAY MAY 22ND

- 8.00 BREAKFAST

9.00 – 10.30 BLOCK 5 – Chairperson J. Klouda

- 9⁰⁰- 9¹⁵ **Palecek Parameter**
J. Janata
- 9¹⁵- 9³⁰ **Voltammetric Detection of DNA Hypermethylation using Polypyrrole-Modified Microelectrode Array**
M. Josowicz
- 9³⁰- 9⁴⁵ **Mechanism of the Water Clusters Formation in the Organic Phase in the Presence of Hydrated Ions**
K. Holub, Z. Samec, and V. Mareček
- 9⁴⁵-10⁰⁰ **Structural and Electrochemical Investigation of Lithium Ions Insertion Processes in Polyanionic Compounds of Lithium and Transition Metals**
A. V. Ivanishchev, N. A. Gridina, K. S. Rybakov, I. A. Ivanishcheva, A. V. Ushakov, and A. Dixit
- 10⁰⁰-10¹⁵ **Identification of Active Electrocatalytic Sites using Electrochemical Scanning Tunneling Microscopy**
R. M. Kluge, R. W. Haid, Y. Liang, D. McLaughlin, C. Csoklich, J. H. K. Pfisterer, O. Schneider, and A. S. Bandarenka
- 10¹⁵-10³⁰ **Solid Electrolyte Interface Formation on Lithium Metal Anode in Polymer Electrolytes**
E. Ushakova, D. Itkis, V. Sergeev, and E. Karpushkin
- 10.30 – 10.45 COFFEE BREAK

10.45 – 12.00 BLOCK 6 – Chairperson D. Dobrovodský

- 10⁴⁵-11⁰⁰ **Oxidation and Reduction of Selected 1,10-Phenanthrolines**
J. Wantulok, R. Sokolova, J. Nycz, and I. Degano
- 11⁰⁰-11¹⁵ **Analytical Method to Evaluate Taurine in Energy Drinks after o-Phthalaldehyde-Ethanethiol Derivatization Using Square Wave Voltammetry**
A. S. Farag, J. Klikarová, M. Sýs, and K. Vytrás
- 11¹⁵-11³⁰ **Novel Voltammetric Protocol for Reliable Determination of a Platelet Aggregation Inhibitor Dipyrindamole on a Bare Miniaturized Boron-Doped Diamond Electrochemical Sensor**
O. Sarakhman and L. Švorc
- 11³⁰-11⁴⁵ **Charge Transport in Single Oligophenylene Molecular Wires with Different Anchoring Groups**
M. Hromadová, V. Kolivoška, J. Šebera, T. Sebechlebská, J. Gasior, Š. Nováková Lachmanová, G. Mészáros, M. Lindner, M. Mayor, and M. Valášek
- 11⁴⁵-12⁰⁰ **Simultaneous Measurement of Single Molecule Conductance and Thermopower**
F. Vavrek, O. Butsyk, V. Kolivoška, Š. Nováková Lachmanová, T. Sebechlebská, and M. Hromadová

12.00 – 13.00 LUNCH

13.00 – 19.00 TRIP

19.00 DINNER

THURSDAY MAY 23RD

8.00 BREAKFAST

9.00 – 10.30 BLOCK 7 – Chairperson S. Baluchová

- 9⁰⁰- 9¹⁵ **Rapid Determination of Major Minerals in Yogurt Using Microdialysis On-line Connected with Capillary Electrophoresis**
F. Opekar, J. Hraníček, and P. Tůma

- 9¹⁵- 9³⁰ **Determination of Different Kinds of Pharmaceuticals in Blood Plasma by Capillary Electrophoresis and Acetonitrile-Based Sample Stacking**
P. Tůma

- 9³⁰- 9⁴⁵ **Electrochemical Decolourization and Cleaning of Waste Water Containing Acid Blue 80**
L. Dušek and G. Kuchtová

- 9⁴⁵-10⁰⁰ **Galvanostatic Recycling Zinc from Selected Industrial Waste Waters**
V. Kočanová, L. Dušek, A. Karásková, and L. Novotný

- 10⁰⁰-10¹⁵ **Chronopotentiometry of Papain Modified by Ruthenium Complexes**
Š. Nováková Lachmanová, L. Pospíšil, B. Talbi, M. Salmain, and M. Hromadová

- 10¹⁵-10³⁰ **What is new in New in Coulometric Analysis and Electrophoresis**
V. Helán

10.30 – 10.45 COFFEE BREAK

10.45 – 12.00 BLOCK 8 – Chairperson J. Gajdár

- 10⁴⁵-11⁰⁰ **Electrochemical Enzymatic Biosensors for Determination of Catecholamines in Flow Systems**
B. Josypčuk, J. Barek, and O. Josypčuk

- 11⁰⁰-11¹⁵ **Construction and Application of Flow Amperometric Biosensor Based on Enzymatic Reactor for Determination of Choline**
S. Tvorynska, J. Barek, and B. Josypčuk

- 11¹⁵-11³⁰ **Characterization of Complexes Based on Tyrosinase Motif**
T. Mikysek, M. Sýs, M. Obluková, and R. Sokolová

- 11³⁰-11⁴⁵ **Metal and Silica Nanoparticle-Antibody Conjugates as Signal Amplifiers in Electrochemical Immunosensor for Bacteria Detection**
Isotachophoretic Determination of Triethanolamine in Cosmetic Products
L. Korecká, A. Kovářová, P. Murasová, I. Brožková, Z. Škraňková, J. Drbohlavová, and Z. Bílková

11⁴⁵-12⁰⁰ **Effect of Immobilization Methods on Service Life of Tyrosinase Biosensors Developed for Dopamine Monitoring**
M. Sýs, A. Hartmanová, and T. Mikysek

12.00 – 14.00 LUNCH

14.00 – 15.30 BLOCK 9 – Chairperson *B. Kamenická*

14⁰⁰-14¹⁵ **Voltammetric Analysis of Daminozide after its Acidic Hydrolysis Employing Boron-Doped Diamond Electrode**
J. Chýlková, L. Janíková, M. Sedlák, J. Bartáček, J. Váňa, and R. Šelešovská

14¹⁵-14³⁰ **Voltammetric Determination of Anthraquinone-2-sulfonate at a Boron-Doped Diamond Electrode**
J. Fischer, A. Apostolopoulou, A. Economou, and J. Barek

14³⁰-14⁴⁵ **Cocktail Reactions of Azoles in the Environment**
J. Jaklová Dyrtrtová and M. Jakl

14⁴⁵-15⁰⁰ **Cocktail Interactions of Cyproconazole and Tebuconazole in Copper Presence**
M. Jakl and J. Jaklová Dyrtrtová

15⁰⁰-15¹⁵ **Reactivity of Penconazole in the Presence of Zinc**
I. Kovač, M. Jakl, and J. Jaklová Dyrtrtová

15¹⁵-15³⁰ **Spectro-Electrochemical and Plasmonic Behavior of Silver Amalgam Particles**
A. Daňhel, P. Šebest, L. Kejík, F. Ligmajer, and M. Horák

15.30 – 15.45 COFFEE BREAK

15.45 – 18.00 BLOCK 10 – Chairperson *S. Tvorýnska*

15⁴⁵-16⁰⁰ **Possibilities of Simultaneous Voltammetric Detection of Tocopherols in Non Aqueous Media**
G. Jashari, M. Sýs, R. Metelka, and I. Švancara

16⁰⁰-16¹⁵ **A Study of Adsorption of Diclofenac onto an Adsorbent of the Biochar Type in Combination with Voltammetry with Chemical Modified Carbon Paste Electrode**
B. Kamenická, T. Weidlich, and I. Švancara

16¹⁵-16³⁰ **Pyrene Derivatives for Organic Semiconductors**
L. Koláčná, P. Polák, T. Tobrman, and J. Ludvík

16³⁰-16⁴⁵ **Spectroelectrochemistry of Natural Porphyrins**
J. Dian, I. Jelínek, J. Jindřich, and J. Mosinger

16¹⁵-17⁰⁰ **Voltammetry of Sudan I at Pyrolytic Graphite and Boron Doped Diamond Electrodes in Aqueous Media**
A. Ondráčková, L. Havran, K. Schwarzová, and M. Fojta

17⁰⁰-17¹⁵ **Cathodic Voltammetric Determination of a Nitro Substituted 1-Hydroxynaphthalene-2-carboxanilide in Dimethyl Sulfoxide in Electrochemical Microcell**
J. Gajdár, T. Goněc, J. Jampílek, M. Brázdová, Z. Bábková, M. Fojta, J. Barek, and J. Fischer

18.00 DINNER

FRIDAY MAY 24TH

8.00 BREAKFAST

9.00 – 10.45 BLOCK 11 – Chairperson *E. Medvecká*

9⁰⁰- 9¹⁵ **Voltammetric Behavior of Triazole Fungicides on Boron Doped Diamond Electrode**
R. Šelešovská, K. Krejčová, K. Schwarzová, L. Janíková, and J. Chýlková

9¹⁵- 9³⁰ **Impedimetric Biosensor for the Detection of Prote Virus Residues**
M. Gál, A. A. Dunajová, and K. Tomčíková

9³⁰- 9⁴⁵ **Voltammetric Determination of Chili Peppers Pungency using Phospholipid Modified Glassy Carbon Electrode**
J. Skopalová, A. Rajcová, Š. Vokounová, and T. Navrátil

9⁴⁵-10⁰⁰ **Application of Carbon Felt Detector for the Determination of Dinitrophenol Metabolites**
H. Dejmková and M. Knaf

10⁰⁰- 10⁴⁵ DISCUSSION/COMMERCIAL MESSAGE

10.45 CLOSING CEREMONY

11.00 LUNCH

Presentation 10 min. + Discussion 5 min.