

**55th Heyrovský Discussions
&
13th International Zdravko Stoykov
Symposium on
ELECTROCHEMICAL IMPEDANCE ANALYSIS**



**Castle Třešť, Czech Republic
June 9-13, 2024**

Sunday, June 9

- 10:00 Registration in **the entrance hall of the J. Heyrovský Institute**, light refreshment, possibility to leave the luggage and walk in the town
- 15:00 Departure of a special bus from the J. Heyrovský Institute (Dolejškova 3, Prague 8 – Kobylisy)
- 17:30 Arrival, registration at the Castle Třešť
- 18:30 Welcome aperitif
- 19:00 Dinner

Monday, June 10 – morning

from
7:00 Breakfast

8:30

Opening of the 55th Heyrovský Discussions & 13th International Zdravko Stoynov Symposium on ELECTROCHEMICAL IMPEDANCE ANALYSIS

Magdalena Hromadová, past-chair
of the ISE Division 6 Molecular Electrochemistry

Daria Vladikova,
member of the EIA Scientific Committee

Organizers Magdaléna Hromadová
Romana Sokolová

Topic: **Zdravko Stoynov Memorial Medal lecture**

<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
9:00 to 10:00	Daria Vladikova	Tamás Pajkóssy	HU	Analysis of Quasi-Reversible CVs and dEIS Data: Transformation to Potential-Program Independent Forms. <i>(Plenary lecture)</i>

10:00 Coffee break

<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
10:30 to 12:15	Magdaléna Hromadová	Roberto Spotorno	IT	Rotating Fourier Transform Applied to Electrochemical Impedance Spectroscopy: New Opportunities for Low-Frequency Measurement. <i>(Introductory lecture)</i>
		Fermin Sáez Pardo	ES	Deep Learning Algorithm, Based on Convolutional Neural Networks, for Equivalent Electrical Circuit Recommendation for Electrochemical Impedance Spectroscopy, and its Application to an All-Iron Battery.
		Chao Zhang	SE	How can we bridge experiments and molecular modelling in EIS?
12:30	Lunch			
Monday, June 10 – afternoon				
Topic: Zdravko Stoynov Memorial Medal lecture				
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
14:00 to 16:00	Daria Vladikova	Andrzej Lasia	CA	Multisine and dynamic impedance spectroscopy. <i>(Plenary lecture)</i>
		Gábor Mészáros	HU	A noise based approach to constant phase behaviour; Is there such a thing as charge transfer resistance?
		Táňa Sebechlebská	SK	3D Printed Impedimetric Sensing: A New Tool for Microfluidic Analysis
		Matěj Stočes	CZ	Get to know Metrohm
16:00	Coffee break			
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
16:30 to 17:30	Dan Bizzotto	Gyözö G. Láng	HU	EIS analysis of PEDOT-modified electrodes – stability, thickness distribution, and non- stationarity <i>(Introductory lecture)</i>
		Viliam Kolivoška	CZ	Measurements of Penetrability in Antifouling Polymer Brush Nanocoatings by Electrochemical Approaches
		Tomáš Kolenský	CZ	Measurement of photopolymer quality during vat polymerization 3D printing by EIS
18:00	Concert (in the courtyard of the castle) J-D-K-D Quartet			
19:15	Dinner			
20:40	Open fire sausage party in the park			

Tuesday, June 11 – morning				
from 7:00 Breakfast				
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
8:30 to 10:00	Romana Sokolová	Dan Bizzotto	CA	Investigating heterogeneity in SAMs of redox-labelled DNA using EIS <i>(Introductory lecture)</i>
		Stanislav Hasoň	CZ	Differential capacitance-time measurements to study the adsorption of oligodeoxynucleotides at the basal plane-oriented pyrolytic graphite electrodes and clarify their complex voltammetric responses
		Veronika Ostatná	CZ	Analysis of carbohydrates on charged surfaces.
10:00 Coffee break				
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
10:30 to 12:00	Rafał Jurczakowski	Soma Vesztegom	HU	Hydrogen evolution at constant current, accompanied by time-resolved impedance monitoring.
		Vitali Grozovski	EE	Electrolytic hydrogen evolution on Bi metal.
		Sheena Louisia	NL	Disentangling the capacitive response of single crystal Pt surfaces at the onset of the alkaline hydrogen evolution reaction
12:00 Lunch				
13:15 Departure of the bus for the trip:				
14:15 Gothic castle Lipnice				
16:30 historic town Havlíčkův Brod - Church tower and bells				
17:30 Traditional brewery "REBEL" (Havlíčkův Brod) - excursion and degustation				
19:30 Dinner in the brewery restaurant				
22:30 Expected arrival to the castle				

Wednesday, June 12 – morning				
from 7:00 Breakfast				
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
8:30 to 10:00	Miran Gaberšček	Rafał Jurczakowski	PL	Equivalent circuit for assessing pore size distribution in porous electrodes by EIS. <i>(Introductory lecture)</i>
		Subhasis Shit	DE	Reaction kinetics in water electro-oxidation addressed by impedance spectroscopy for redox-active NiFe oxyhydroxides
		Shima Farhoosh	DE	Reaction Kinetics in Water Oxidation Studied by Time-resolved X-ray Absorption and Electrochemical Impedance Spectroscopy
10:00 Coffee break				
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
10:30 to 12:20	Gábor Mészáros	Miran Gaberšček	SI	Physics Based Transmission Line Models for Porous Battery Electrodes. <i>(Introductory lecture)</i>
		Varsha Sasikumar	IE	Electrochemical Impedance Spectroscopy Investigation of Vanadium Flow Battery Reactions at Glassy Carbon Electrodes
		Blagoy Burdin	BG	First Steps in Differential Resistance Analysis for battery testing
		Werner Strunz	DE	Validation and Reconstruction of Impedance Data – Combining Measurement Model and ZHIT Algorithm
12:30 Lunch				
Wednesday, June 12 – afternoon				
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
14:30 to 16:00	Tamás Pajkóssy	Daria Vladikova	BG	Accelerated Ex-situ Aging of Solid Oxide Fuel Cell Anode via Redox-cycling Investigated by Differential Impedance Analysis <i>(Introductory lecture)</i>
		Milena Krapchanska	BG	Artificial Aging of SOFC by Accelerated Stress Tests
		Paolo Piccardo	IT	EIS on all solid state Li-ion batteries with Halide based electrolyte: an insight on the battery condition during operation
16:00 Coffee break				

<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
16:30 to 18:15	Magdaléna Hromadová	Nicolas Murer	FR	Non-stationary impedance: the case of the Volmer-Heyrovský corrosion reaction.
		Jan Macák	CZ	Electrochemical impedance spectroscopy of steels in supercritical water.
		Tomáš Černoušek	CZ	Electrochemical impedance spectroscopy measurement of microbially influenced corrosion.
		Lubomír Pospíšil	CZ	Electrochemical Impedance of Organic Multiple Redox Sites.
18:30	Walk around Třešť			
20:00	Farewell dinner			

Thursday, June 13 – morning

from

7:00 Breakfast

8:30 – 9:00 Please, leave the rooms – check out – put luggage in checkroom

Topic: Tutorial Session				
<i>Time</i>	<i>Chairman</i>	<i>Speaker</i>		<i>Title of presentation</i>
9:00 to 10:15	Daria Vladikova	Tamás Pajkóssy	HU	1. Basics of electrochemical impedance spectroscopy EIS 2. Experimental aspects of EIS
10:15	Coffee break			
Topic: Q & A Session with Companies				
<i>Time</i>	<i>Chairman</i>	<i>Representative</i>		<i>Company Name</i>
10:45 to 11:45	Magdaléna Hromadová	Werner Strunz, Alexander Krimalowski		<i>Zahner-Elektrik GmbH & Co KG</i>
		Nicolas Murer		<i>BioLogic SAS</i>
				General Discussion on EIA
11:45	Closing remarks			
12:00	Lunch			
13:30	Departure to Prague			
16:30	expected arrival at the Václav Havel Airport Prague			