Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences

Jagiellonian University, Faculty of Chemistry

Foundation "Pro-Kataliza"

under the auspices of the

International Society of Electrochemistry

and

Polish Chemical Society

4th International Symposium on Surface Imaging/Spectroscopy at the Solid/Liquid Interface

ISSIS 2015

September 2nd – 4th, 2015, Cracow, Poland

Piotr Warszyński, symposium chair
Marian Jaskuła, co-chair
Michał Mosiałek, organizer
Grzegorz Sulka, co-organizer

http://issis2015.krakow.pl/

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P. Warszyński, ICSC, Poland, Chair

Main topics of the Conference:

1. New materials for electrochemistry - their synthesis and characterization by *in situ* and *ex situ* spectroscopic, SPM and electrochemical techniques
2. Application of spectroscopic, SPM and electrochemical techniques in studies of surfaces modified by metal oxides, semiconductors, polymers, colloids, hybrid materials and nano-sized catalysts
3. High resolution imaging of clusters, biomolecules and biological systems
4. Fundamentals of surface structure, reactivity and electron transfer – comparison of experimental and theoretical results

Plenary lectures

Thomas Graule, EMPA - Swiss Federal Laboratories for Materials Science and Technology, Switzerland
„Interfaces at ceramic powder surfaces and their modification by organic surfactants”

Hans-Joachim Lewerenz, California Institute of Technology, USA
„Towards the Artificial Leaf: Operando Surface Analyses of Light Absorbers and Catalysts”

Daniel Mandler, The Herbew University of Jerusalem, Israel
„ Modification and Characterization of Surfaces with High Resolution by Scanning Electrochemical Microscopy"

Maria de Fatima Montemor, Technical University of Lisbon, Portugal
„The potential of localized electrochemical tools to probe the self-healing ability of smart anti-corrosion coatings”

Invited lectures

Johan Bobacka, Äbo Akademi University, Finland
„Signal transduction mechanisms in solid-contact ion-selective electrodes”

Andrzej Czerwiński, University of Warsaw, Poland
„Critical review of electrochemical methods used for determination of real surface area of catalysts"

Enrique Herrero, University of Alicante, Spain
„Understanding ethanol oxidation reaction using model surfaces"

Piotr Jasiński, Gdańsk University of Technology, Poland
„The role of functional layers in solid oxide fuel cells"

Yuriy Khalavka, Yuriy Fedkovych Chernivtsi National University, Ukraine
„Relationships between optical and electrical properties of CdTe quantum dots and their surface structure”

Halina Krawiec, AGH University of Science and Technology, Cracow, Poland
„Coupling of EBSD Measurements and Microcapillaries Technique to Study the Influence of Crystallographic Grains Orientation on Electrochemical Behaviour of Al and AlMg2”

Damian Kowalski, University of Reims, France
„Anodic TiO_2 nanotubes as a platform for electrodeposited nanostructures”

Paweł Kulesza, University of Warsaw, Poland
„Importance of Specific Interactions between Active Centers and Nanostructured Supports in Catalytic Processes for Electrochemical Energy Conversion and Storage”

Adam Lewera University of Warsaw, Poland
"Electronic and electrocatalytic properties of noble metal nanoparticles"

Lifeng Liu, International Iberian Nanotechnology Laboratory, Braga, Portugal
„Nanostructures Consisting of Earth-Abundant Elements for Electro- and Photoelectro-catalysis"

Olaf Magnussen, University of Kiel, Germany
„ Molecular organization of organic cations at electrode surfaces in ionic liquids and aqueous electrolytes”

Magdalena Parlinska, University of Rzeszow
„3D structural and chemical analysis of ternary PtRh/SnO_2 catalysts for ethanol oxidation in direct ethanol fuel cells"

Marcin Pisarek, IPC PAS, Warsaw, Poland
„Multifunctional composite layers based on Al_2O_3 and TiO_2 nanotubes loaded with silver nano-particles. Structural and morphological characterization and potential applications”

Victor Manuel De La Prida Pidal, University of Oviedo, Spain
"Anodic alumina nanoporous membranes and titania nanotube arrays for template-assisted electrochemical growth of functional metallic nanowires"

Jacqueline Priebe, Leibniz Institute for Catalysis, Germany
"In situ spectroscopic tools for elucidating electron transfer mechnisms and structure-reactivity relationships in photocatalytic hydrogen generation over supported metal catalysts"

Sławomir Sęk, University of Warsaw, Poland
„Towards Biomimetic Interfaces: Mechanism of Lipid Film Formation on Gold Surface”

Magdalena Skompska, University of Warsaw, Poland
„Synthesis and catalytic application of a composite: poly(1,8-diaminocarbazole)/noble metal nanoparticles”

Konrad Szaciłowski, AGH University of Science and Technology, Cracow, Poland
„Photoelectrochemical information processing: binary logic, ternary logic and Hebbian learning”

Galina A. Tsirlina, M. V. Lomonosov Moscow State University, Russia
„Electrochemistry for fabrication of nanoscale devices"

Kohei Uosaki, International Center for Materials Nanoarchitectonics, Tsukuba, Japan
„Boron Nitride as an Efficient Electrocatalyst for Oxygen Reduction Reaction - Theoretical and Experimental Investigations”

Mikhail A. Vorotyntsev, M. V. Lomonosov Moscow State University, Russia
„Spectroelectrochemistry in the course of oxidative monomer electrolysis as a tool to characterize the molecular structure of the electroactive polymer based on Mg(II) porphine**”**

Leszek Zarazka, UJ, Krakow, Poland
„Electrochemical growth of nanostructured tin oxide films”

The conference venue:
Building of the J. Haber Institute of Catalysis and Surface Chemistry
Polish Academy of Sciences
ul. Niezapominajek 8, Kraków, Poland

Conference fee:

Regular participants	250 Euro (1075 PLN)
Students	120 Euro (516 PLN)
Invited lecturer	100 Euro (430 PLN)

Fee covers: Participation in the conference, book of abstracts, 3 lunches, social meetings, refreshments during the poster sessions, coffee breaks and the conference dinner.

ISE will refund or reduce fee for 2–5 participants from less-developed countries who apply before May 15th and fill the application for fee refund form. If only small number of participants apply there will be the possibility to refund a travel cost (inexpensive transport) or / and accommodation.

Commercial participants
Commercial enterprises are invited to present their products during the conference. Cost of participation 365 Euro, VAT not included (1570 PLN netto).
The fee covers: stand and poster table close to the conference room for presenting the products during the whole conference and one page in the book of abstracts for advertisements.

Forms of participation:
Oral presentation on invitation of the organizers or selected from among submitted abstracts. All participants will have also an opportunity to present their achievements in the form of posters.

Abstract and registration form available at: http://issis2015.krakow.pl/
Please, submit the abstracts and registration form before June, 30th to ncissis@cyfronet.pl
The length of the abstract should not exceed 2 pages.

Electrochemica Acta:
A special Issue of Electrochimica Acta, open for all participants, will be published after the conference. Deadline for submition the manuscript is December 1st, 2015. All works will undergo peer revision process.

Accommodation:
Cracow, being a city of tourism offers plenty of possibilities for accommodation, ranging from inexpensive pensions (guest rooms) to five-star luxury hotels. Please, make your reservation by your travel agency or by yourself via internet, using (for instance):

http://www.booking.com/city/pl/krakow.html
http://www.nawojka.bratniak.krakow.pl/

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