

Wednesday, 27th May

Chair: Karel Bouzek

9.00 Markéta Zukalová

Sol-Gel TiO₂ Blocking Layers: Electrochemical Properties and Electrochemical Doping

9.20 Petr Dzik, Michael Neumann Spallart, Michal Veselý, Mária Veselá

Ink Jet Printing of Nanoparticulate Titania Consolidated by Organosilica Binder and Application Examples - Part I

9.40 Petr Dzik, Michael Neumann Spallart, Michal Veselý, Mária Veselá

Ink Jet Printing of Nanoparticulate Titania Consolidated by Organosilica Binder and Application Examples – Part II

10.00 Andreas Brüger, Guenter Fafilek, Michael Neumann-Spallart

Influence of pH on the Photocatalytic Treatment of Cyanide

10.20-11.00 – coffee break, check out from the hotel

Chair: Guenter Fafilek

11.00 Martin Prokop, Tomáš Bystroň, Karel Bouzek

Mechanism of H₃PO₃ Electrochemical Oxidation on Pt in Context of High Temperature PEM Fuel Cell Operation.

11.20 Monika Drakselová, Roman Kodým, Dalimil Šnita, Karel Bouzek

Analysis of Mass and Charge Distribution in HT PEM Fuel Cell Stack by 3D Mathematical Model

11.40 Kateřina Přikrylová, Jana Drbohlavová

Electrochemical Preparation of Nanostructured Photocatalytic TiO₂ Layers

12.00 Hyungkyu Han

The Synthesis of One-Dimensional TiO₂ Nanostructures and Study on Their Electrochemical Behaviors

12.30 – final remarks

13.00 – lunch

14.00 – departures



**7th CZECH-AUSTRIAN WORKSHOP:
NEW TRENDS IN PHOTO AND ELECTRO CATALYSIS**



UCT PRAGUE

CONFERENCE PLACE: HOTEL HAPPY STAR, HNANICE, CZECH REPUBLIC

(www.hotelhappystar.cz)

Date: 25th-27th May 2015



Main Czech partner: University of Chemistry and Technology, Prague – Prof. Dr. Ing. Josef Krýsa

Main Austrian partner: Vienna University of Technology – Assoc. Prof. Dr. Guenter Fafilek

Participants:

Czech Republic

University of Chemistry and Technology, Prague

J. Heyrovský Institute of Physical Chemistry AS CR

Institute of Chemical Process Fundamentals AS CR

Faculty of Chemistry, Brno University of Technology

Institute of Physics AS CR

Institute of Inorganic Chemistry AS CR

University of South Bohemia in České Budějovice

Austria

Vienna University of Technology

University of Salzburg

University of Vienna

France

CNRS/Université de Versailles



The event is co-funded by AKTION CR – Austria programme.



Program

Monday, 25th May

12.30-13.00 – arrival

13.00-13.30 – registration of participants

13.30 – Welcome talk

Chair: Josef Krýsa

13.40 Ladislav Kavan

Diamond Electrode for Dye-Sensitized Solar Cell

14.10 Johannes Schneider, Thomas Berger, Oliver Diwald

Porphyrin Adsorption Studies on MgO Nanocubes

14.30 Zdeněk Hubička, Štěpán Kment, Martin Čada

Effect of the Substrate Ion Bombardment During Reactive Pulsed Sputtering Deposition of Thin Films

14.50 Georg Brunauer, Guenter Fafilek

Experimental Investigation of $\text{La}_{1-x}\text{Sr}_x\text{CrO}_3/\text{SrTiO}_3(100)$ Heterostructure Used for a High-Temperature Photovoltaic Cell

15.10-15.45 – coffee break

Chair: Michael Neumann-Spallart

15.40 Hana Krýsová, V. Petrák, W.S.Yeap, Ch.E. Nebel, K. Haenen, L. Kavan

Photocathodes for Dye-Sensitized Solar Cells

16.00 Duarte N. Tito

Electro-coagulation – Electrochemistry in Wastewater Treatment

16.20 Pavel Krystyník, Petr Klusoň, Duarte N. Tito, R. Boubínová

Removal of Toxic Metals by Electrocoagulation Using Stainless Steel and Aluminum Electrodes

16.40 Eva Pližingrová, Jan Šubrt, Josef Krýsa

Titanium Dioxide Photocatalyst Prepared by Lyophilization from Titanyl Sulphate: Activity in UV and Visible Light

17.00 Michal Baudys, Josef Krýsa

Inks Containing Resazurin and Acid Violet 7 as a Testing Method for Self-Cleaning Paints

19.30 – common dinner

Tuesday, 26th May

Chair: Oliver Diwald

9.00 Josef Krýsa, Magda Morozová, Martin Zlámal, Štěpán Kment, Zdeněk Hubička

Photoelectrochemical Hydrogen Evolution with n-Type Semiconductor Photoanode

9.20 Šárka Paušová, Štěpán Kment, Josef Krýsa

1-D Nanostructures of TiO_2 and Fe_2O_3 for Photoelectrochemical Water Splitting – Review

9.40 Jakub Mališ, Martin Paidar, Karel Bouzek

Hydrogen Permeability of Selected Proton Exchange Membranes in Water Electrolysis Process

10.00 Filip Karas, Roman Kodým, Martin Paidar, Karel Bouzek

Effect of Operating Conditions on Kinetic Parameters of Oxygen Evolution Reaction in SOEC

10.20-10.50 – coffee break

Chair: Ladislav Kavan

10.50 Štěpán Kment, Zdeněk Hubička, Josef Krýsa, Z. Remeš, J. Tuček, J. Olejníček, Radek Zbořil

Extraordinary PEC Water Splitting Efficiency of Hematite Thin Photoanodes – the Role of Substrate Type

11.10 Martin Zlámal, Josef Krýsa

Tungsten Oxide Layers for Photoelectrochemical Water Splitting

11.30 Augusto Márquez, Manuel Rodríguez, Juan A. Anta, Gerko Oskam, Thomas Berger

Defects in Wet-Chemically Synthesized WO_3 Nanostructures: Impact on Photoelectrocatalytic Properties

12.00 – lunch

14.00-18.00 – individual discussions

19.30 – common dinner

21.00 – Informal discussions of teachers, young researchers and PhD students about the aspects and experiences from Czech-Austrian exchange programme

