

Theory Monday, March 26th

- 09:00 **Welcome**
- 09:30 **Voltage, Current, Time**
Mathematical and physicochemical basics of EIS
- 10:30 *Coffee Break*
- 11:00 **The Connection Between Structure, Processes, And Impedance Of Electrochemical Objects**
- The Contributions Of Electrochemical Processes I:**
Discrete and Distributive Impedance Models
- 12:30 *Lunch*
- 14:00 **The Contributions Of Electrochemical Processes II:**
Models for Processes with Mass Transport
- 14:30 **Theoretical Aspects For Testing Impedance Data**
Basics of the Kramers-Kronig- and the Z-Hit algorithms
- 15:00 **Photo-Electrochemical Techniques:**
Dynamic and Spectral Measurements on DSSC, OSC, OLED, and Electrochromic Devices
- 15:30 *Coffee Break*
- 16:00 **Electro-technical Aspects Of the Impedance Spectroscopy**
Background Information from the Technical Point of View
- 17:30 *Guided tour through the historical rooms of Kloster Banz*
- 19:00 *Dinner*

Practical Courses Tuesday, March 27th

- Practical Courses** (rotating through the courses in groups)
- Course 1: **Understanding Alternative Solar Cell Concepts – The Application of Intensity Modulated Photo Spectroscopy in Combination with EIS + fitting**
- Course 2: **Combined Impedance and Spectro-Electrochemical Absorbance Measurements Applied on Conductive Polymers**
- Course 3: **Combination and Automation of Electrochemical Techniques and Measurement Data Analysis with Script**
- Course 4: **Extending the Scope of Electrochemical Experiments - Remote Control and the Implementation of Virtual Instruments**
- Course 5: **EIS-Measurements and Data Processing Applied on a Fuel Cell Model**
- Course 6: **From Measurements to Physical Parameters - Interpretation and Modelling of Electrochemical Impedance Spectra on the Example of a Battery Model**
- 09:00 **Organizing groups**
- 09:20 **First course**
- 10:10 **Changing course**
- 11:00 *Coffee Break*
- 11:30 **Changing course**
- 12:20 *Lunch*
- 13:50 **Changing course**
- 14:40 **Changing course**
- 15:30 *Coffee Break*
- 16:00 **Changing course**
- 19:00 *Dinner*
- 20:30 *Live-Music with the Hearts of Gold
Oldies & Goodies - Unplugged*

Practical Courses Wednesday, March 28th

Practical Courses (rotating through the courses in groups)

- Course 7: **Photo Current Spectroscopy (CIMPS-pcs) on the Example of a Photo-induced Hydrogen Evolving Electrode**
- Course 8: **Dynamic Electrochromic Transmittance/Reflectance (CIMPS-dtr)**
- Course 9: **Battery Cycling**
- Course 10: **Appearance and Reality in Impedance Spectroscopy - Detection and Prevention of Artefacts in Impedance Measurements**
- Course 11: **Coating & Laminate Testing by Means of Combined AC- & DC- Methods**
- Course 12: **Discussion of individual questions**
- 09:00 **First course**
- 09:50 **Changing course**
- 10:40 *Coffee Break*
- 11:10 **Changing course**
- 12:00 **Changing course**
- 12:50 *Lunch*
- 14:20 **Changing course**
- 15:30 **Changing course**
- 16:20 **End**

Kronach Impedance Days 2012

preliminary

March 26th – 28th, 2012

Management

Zahner-elektrik GmbH & Co. KG
Thüringer Str. 12 - D-96317 Kronach
Tel: +49-(0)9261-962119-0
Fax: +49-(0)9261-962119-99
Internet: www.zahner.de
email : hjs@zahner.de

Seminar Location

Bildungszentrum Kloster Banz
D-96231 Bad Staffelstein, Germany
Tel.: 09573-337-0
Fax: 09573-337-33
email: banz@hss.de