Theory Monday, April 03rd

09:00 **Welcome**

09:30 **Introduction into EIS**
Mathematical and physicochemical basics of EIS
Dr. C. A. Schiller

10:30 *Coffee Break*

11:00 **The Connection Between Structure, Processes, And Impedance Of Electrochemical Objects**
Dr. C. A. Schiller

The Contributions Of Electrochemical Processes I:
Discrete and Distributive Impedance Models
Dr. C. A. Schiller

12:30 *Lunch*

14:00 **The Contributions Of Electrochemical Processes II:**
Models for Processes with Mass Transport
Dr. W. Strunz

14:30 **Theoretical Aspects For Testing Impedance Data**
Basics of the Kramers-Kronig- and the Z-Hit algorithms
Dr. W. Strunz

15:00 **Photo-Electrochemical Techniques:**
Dynamic and Spectral Measurements on DSSC, OSC, OLED, and Electrochromic Devices
Dr. M. Multerer

15:30 *Coffee Break*

16:00 **Introduction Into ThalesXT Software**
Dr. M. Multerer, E. Schmidt

19:00 *Dinner*

20:30 Live-Music with the *Hearts of Gold*
Oldies & Goodies - Unplugged

Practical Courses Tuesday, April 04th

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**
Dr. M. Multerer

Course 2: **Combined Impedance and Spectro-Electrochemical Absorbance Measurements Applied on Conductive Polymers**
Dr. C. A. Schiller

Course 3: **Combination and Automation of Electrochemical Techniques and Measurement Data Analysis with Script**
Dr. B. Röseler

Course 4: **Extending the Scope of Electrochemical Experiments - Remote Control and the Implementation of Virtual Instruments**
Dr. W. Strunz

Course 5: **EIS-Measurements and Data Processing Applied on a Fuel Cell Model**
Dr. N. Wagner

Course 6: **From Measurements to Physical Parameters - Interpretation and Modelling of Electrochemical Impedance Spectra on the Example of a Battery Model**
Prof. Dr. R. Kaus

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*

Practical Courses Wednesday, April 05th

Practical Courses (rotating through the courses in groups)

Course 7: **Photo Current Spectroscopy (CIMPS-pcs) Applied on Monolithic-, Organic-, and Dye Sensitized Solar Cells**
Dr. M. Multerer

Course 8: **Fast Intensity Transients and Optical Impedance Spectroscopy: Dynamic Electrochromic Transmittance/Reflectance**
Dr. C. A. Schiller

Course 9: **Battery Cycling**
Dr. B. Röseler

Course 10: **Appearance and Reality in Impedance Spectroscopy - Detection and Prevention of Artefacts in Impedance Measurements**
Dr. W. Strunz

Course 11: **Coating & Laminate Testing by Means of Combined AC- & DC- Methods**
Dr. J. Hollaender

Course 12: **Parallel measurements on single cells of battery and fuel cell stacks.**
S. Fröba

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**
15:10 **Changing course**
16:00 **End**

Kronach Impedance Days 2017

April 3rd – 5th, 2017

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