36th Kronacher Impedanztage 2027

(Kronach Impedance School)

Program

March 15th – 17th, 2027

Management

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Seminar & Accommodation

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Theory Monday, March 15th

08:30 *Registration + Morning Coffee Break*

09:00 **Welcome**

09:30 **Electrochemical Impedance Spectroscopy (EIS) – An Introduction**
From Theoretical Basics to Practical Aspects
Dr. Dino Klotz

10:30 *Coffee Break*

11:00 **Electrochemistry Basics – How can EIS help?**
Electrochemical Phenomena and How Those Can Be Identified, Characterized and Analyzed by EIS
Dr. Dino Klotz

12:30 *Lunch*

13:30 **Zahner Lab – Hands-On Session**
Chance to Make First Steps in the New Zahner Lab
Dr. Dino Klotz

14:30 **Validation of Impedance Spectra**
Comparison between Measurement Model and Z-HIT Algorithm
Dr. Waqas Saddique

15:00 **Impedance Spectroscopy: A Practical Study**
Impedance-based Analysis of Fuel Cells and Electrolyzers
PD Dr.-Ing. André Weber

16:00 *Coffee Break*

16:30 **Impedance Spectroscopy: A System-Theoretical Approach**
Analysis of Impedance Spectra of Electrochemical Systems using a Data-Driven and Systems-Theoretical Approach
Prof. Dr.-Ing. Michael Danzer

17:30 **Open Discussion / Q&A**
General Discussion with all Speakers
Dr. Dino Klotz

19:00 *Dinner & Social Evening*

Practical Courses Tuesday, March 16th

Attendees rotate through the courses in groups.

Course 1: **Handling Changing States during EIS Measurements**
Dr. Michael Multerer

Course 2: **Artefacts in EIS Measurements of Low Impedance Samples**
Dipl. Ing. Steffen Fröba

Course 3: **Artefacts in Measurements of High Impedance Samples**
M. Eng. Maximilian Krapp

Course 4: **From Measurements to Physical Parameters – Interpretation and Modelling of Electrochemical Impedance Spectra**
Dr. Waqas Saddique

Course 5: **Fundamental Electrochemical Kinetics – Tafel Slopes Using EIS**
Dr. Felix Hiege

Course 6: **Series EIS Measurements on a PEM Electrolysis Cell: Measurement Design and Data Evaluation**
Dr. Jann Odrobina

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, March 17th

Attendees rotate through the courses in groups.

Course 1: **Ultra-Fast Impedance Measurements Using Multisine Excitation**
Dr. Felix Hiege

Course 2: **Parallel Measurements on Individual Cells in Battery, Electrolyzer, and Fuel Cell Stacks**
Dipl. Ing. Steffen Fröba

Course 3: **Alternative Excitation Signals for Electrochemical Characterization – The Wave Feature**
Dr. Jann Odrobina

Course 4: **Solid State Electrochemistry – From EIS to Activation Energy**
Dr. Dino Klotz

Course 5: **Measurement Automation for Electrochemists: Less Manual Work, More Science – Custom Experiment Builder and KI-Agent-Integration (MCP)**
Dr. Waqas Saddique

Course 6: **Measurement Automation for Electrochemists: Less Manual Work, More Science – Python Scripting**
M. Eng. Maximilian Krapp

08:30	**First Course**
09:15	**Changing Course**
10:00	*Coffee Break*
10:30	**Changing Course**
11:15	**Changing Course**
12:00	*Lunch*
13:30	**Changing Course**
14:15	**Changing Course**
15:00	*Final Coffee Break + Farewell*
15:30	**End**