International Workshop IRP 3.3.
Electrochemical Power Sources

Brno, November 28 - 29, 2019
Workshop Organisation

**Thursday, November 28:**
Electrotechnology department meeting room  
Technická 10, 4th floor, room N 4.38

**Friday, November 29:**  
Dean’s office meeting room  
Technická 10, 2nd floor

**Workshop Chairman:**  
Doc Ing. Marie Sedlářiková, CSc.
Lectures

Thursday, November 28th

12:30  Registration

13:00  Opening of Workshop

Assoc. Prof. Ing. Marie Sedlaňková, CSc.
Organisation Committee

Lithium Batteries and Related Systems

13:10 – 16:20  

M. Míka
Fast ion-conducting glass for solid electrolytes

O. Čech
Amorphous sulfur copolymer prepared by inverse vulcanization

Y. Veselkova
Aprotic gel polymer electrolytes based on MMA

J. Libich
Electrode Materials for Sodium-Ion Batteries IV.

Lead –Acid Batteries

J. Zimáková
Research and development of lead-acid accumulators

Application of Batteries for Electromobility and Industry, Simulations

P. Výroubal, M. Mačák
Numerical simulations in electrochemistry and thermal battery management

J. Maxa
Research of the supersonic flow un liw oressures for the areas of the electron microscopy.

J. Máca
Ionic liquids and their use in electrolytes
Photovoltaic Systems

J. Vaněk
Testing methods of photovoltaic cells and modules

Application of Batteries for Electromobility and Industry, Simulations

16:20 – 17:20

P. Vanýsek
International Cooperation – European Energy Research Alliance and Priorities in the Energy Storage Research Field

M. Sedláříková
Introduction AKTION and NATO projects

J. Libich
International Cooperation – Academic staff mobility programme
J. Libich – TU Wien
M. Ortiz – University of La Plata

Discussions about Mutual Cooperation

Friday, November 29th

Lithium Batteries and Related Systems II

9:00 – 10:30

Vito Di Noto
Superior Doped Olivine Cathodes for Fast Charge/Discharge Lithium Batteries

G. Fafílek
A Novel in-situ Grazing-Incidence-XRD Electrochemical Cell for the Characterisation of Electrodes

P. Janderka
Scanning probe electrochemistry with high resolution dc-/ac-/ic-SECM

A. Straková Fedorková
Upcoming Horizon H2020 project

Coffee Break
Laboratories

10:30 – 12:30

Laboratory Lectures and Practical Exercises
The participants will get a first-hand ("hands-on") feeling for steps in Li-ion battery cell assembly and analysis.

a) Lecture points:
   • General design and construction of a Li-ion battery.
   • Electrode slurry preparation.
   • Electrode manufacturing.
   • Testing EL-CELL assembly.
   • Cell formation and testing on potentiostat Bio-Logic.

b) "Elektrikárium"

c) Laboratories 3D printing and simulations, 3D printed Robot and many others

13:00

Closing the Workshop