CH-700(1)

Advanced electroanalytical chemistry I (2019)

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Cursus	Sem.	Type
Chemistry and Chemical Engineering		Obl.

Language of teaching	English
Credits	1
Session	
Exam	Project report
Workload	30h
Hours	**16**
Courses	16
Number of positions	

Frequency

Every year

Remark

Next time: November 2018

Summary

Voltammetry, Impedance, Electrochemical imaging by scanning electrochemical microscopy, Inkjet printing of electrocatalysts and catalyst layers, Combinatorial electrochemical catalyst screening

Content

1. Electrochemistry and redox electrocatalysis
2. Redox flow batteries
3. Impedance
4. Instrumentation
5. Scanning electrochemical microscopy and related techniques
6. Scanning electrochemical microscopy with soft probes
7. Inkjet printing of electrodes for electroanalysis
8. Printing and screening of electrocatalysts

Note

Next session November 2017 (block)
Textbook recommended: "Analytical and Physical Electrochemistry" by H.H. Girault, EPFL Press, 2004.

Keywords

Voltammetry, Electrochemical Sensors, Inkjet Printing, Electrodes, Electrocatalysts

Learning Prerequisites

Important concepts to start the course

Fundamental electrochemistry

Resources

Notes/Handbook

Textbook recommended:"Analytical and Physical Electrochemistry" by H.Girault, EPFL Press, 2004.