



FCK3504 Electrode Kinetics 9.0 credits

Elektrodkinetik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for FCK3504 valid from Autumn 2020

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Eligible for studies at the third-cycle level and the course KE2110 – Applied electrochemistry, or similar.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completion of the course the doctoral student should have the knowledge and ability to:

- explain the theories behind the electrochemical methods discussed in the course, what information one can get when using these techniques and also their limitations
- explain how to use the techniques and how to determine electrochemical parameters from experimental data
- evaluate which technique that is most suitable for a certain electrochemical system, and when searching for specific parameters

Course contents

- Cyclic voltammetry
- Differential electrochemical mass spectroscopy (DEMS)
- Electro crystallisation
- Overpotential decay measurements
- Electrochemical impedance spectroscopy

Examination

- LIT1 - Literature studies, 3.0 credits, grading scale: P, F
- SEM1 - Seminars, 6.0 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Fulfilled home assignments, and participation at a majority of the seminars (at least 80%). Approved literature survey report and oral presentation for other students attending the course.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.