



FKD3050 Techniques for Adsorption Studies 6.0 credits

Tekniker för adsorptionsstudier

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 FKD3050 valid from Spring 2009

Grading scale

Education cycle

Third cycle

Specific prerequisites

Undergraduate level course in technical surface and colloid chemistry of similar.

Language of instruction

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

Intended learning outcomes

After completing the course the students shall be able to:

- understand the principles of ellipsometry, reflectometry, QCH, DPI and ESCA
- have practical competence to perform experiments using two of the above techniques
- use the primary data generated by the instruments to extract information on adsorbed layers

Course contents

The course treats ellipsometry, reflectometry, QCM, DPI and ESCA- För each technique the following will be provided:

- lectures describing the principles of the technique and evaluation of primary data
- selected key articles (2-3 for each technique) that the participants shall study
- exercises where the participants will gain hands-on knowledge of the techniques (except ESCA that requires an experienced operator)

All participants will participate in part 1-3 for each technique and they select 2 techniques for part 4.

Course literature

2-3 key articles for each technique and copies of lecture material.

Examination

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.

Other requirements for final grade

For passing the course it is required that the students answer homework questions (2.4 for each technique). It is also required that the student correctly analysis given primary data from each technique.

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.

