



F3B5208 NMR Spectroscopy with Macromolecular Applica- tions 6.0 credits

NMR-spektroskopi med makromolekylära tillämpningar

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 F3B5208 valid from Spring 2014

Grading scale

undefined

Education cycle

Third cycle

Specific prerequisites

The course requires a background equivalent to or better than courses covering the all basic aspects of physical chemistry such as thermodynamics, molecular structure, and chemical dynamics.

Language of instruction

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

Intended learning outcomes

The course introduces the students to basic principles of NMR spectroscopy. The classical description incl the vector model, rotating frame, radiofrequency pulses and their effect, the time dependent signal, Fourier transformation, relaxation times, simple pulse sequences and instrumentation is discussed in detail and the quantum mechanical basis is sketched. Applications are discussed and demonstrated.

Course contents

The course consists of regular lectures and exercises.

Course literature

J. Keeler, Understanding NMR Spectroscopy

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

Participation at the seminars and completed home exercise. the course will end with an oral examination.

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.