Level: PhD

Course title: Molecular Spectroscopy (advanced course) (DSH-615)

Status: Elective

ECTS: **15**

Requirements: None

Learning objectives

Acquiring profound theoretical and practical knowledge of particular topics of molecular spectroscopy, depending on the subject of a PhD thesis.

Learning outcomes

On completion of this course, students should be able to apply the acquired broad knowledge of the relevant topics of molecular spectroscopy to improve their PhD thesis and further chemical education.

Syllabus

Theoretical instruction

Rotational spectra of molecules. Spectroscopy in the microwave and far infrared radiation range. Oscillatory and oscillatory-rotational spectra of molecules. Spectra in the IR region. Raman spectroscopy. The electronic spectra of molecules. Spectra in the visible and UV range. NMR spectroscopy. ESR spectroscopy.

Practical instruction

Weekly teaching load				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	