Level: PhD

Course title: Structural Analysis of Monosaccharides and Derivatives (DSB605)

Status: Elective

ECTS: 15

Requirements: None

Learning objectives

Introduce students to the structure determination of monosaccharides and derivatives using modern instrumental methods in organic chemistry.

Learning outcomes

Mastering modern methods of structural analysis of carbohydrates.

Syllabus

Theoretical instruction

Nuclear magnetic resonance spectroscopy and mass spectrometry as the most important technique for structural characterization of carbohydrates, synthetic or biological origin. Correlation methods of NMR spectroscopy for the homo and heteronuclear assignation of monosaccharides. Application of modern ionization mass spectrometry methods in the analysis of carbohydrates. Determination of the configuration and conformation using circular dichroism (CD) spectroscopy and optical rotary dispersion (ORD).

Practical instruction

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