Nonlinear Spectroscopy

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Cursus: Photonique

Sem. Type
Obl.

Language: English
Credits: 3
Session: Written
Exam: 90h
Workload: 42
Hours: 28
Lecture: 14
Exercises: No positions

Frequency
Every 2 years

Remarque
Block course February 3 to 7, 2020

Summary
Molecular properties relevant for spectroscopy...

Content
• Molecular properties relevant for spectroscopy
• Symmetry properties, space, time induced
• Susceptibility: Relation between molecular properties and macroscopic
• Optical properties
• Overview of nonlinear optical spectroscopies: SHG / SFG / CARS
• Nonlinear optical spectroscopy on planar surfaces
• Nonlinear optical spectroscopy on particle surfaces

Learning Prerequisites
Recommended courses
bachelor level physics / chemistry