

PHYS-610

**Nonlinear Spectroscopy (2023)**

Roke Sylvie

<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
Photonics		Obl.

Language of teaching	English
Credits	3
Session	
Exam	Written
Workload	90h
<b>Hours</b>	<b>42</b>
Courses	28
Exercises	14
<b>Number of positions</b>	

**Frequency**

Every 2 years

**Remark**

Next time: Spring 2020 - To be confirmed

**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