

CH-611

Inorganic chemistry "Techniques and methods"

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Cursus	Sem.	Type
Chemistry and Chemical Engineering		Opt.

Language of teaching	English
Credits	2
Session	
Exam	Oral presentation
Workload	60h
Hours	30
Courses	15
Exercises	15
Number of positions	13

Frequency

Every 3 years

Remark

Next time Fall 2024

Summary

To present and discuss important recent contributions in the field of inorganic chemistry incorporating techniques and methods. Student literature seminars based on selected publications, emanating from the last 12 months. Seminar preceded by introduction to the topic followed by group discussion.

Content

The topics covered in this course will include recent advances in the field of:

1. bioinorganic chemistry (e.g. EPR of metalloenzyme model compounds, X-ray diffraction techniques).
2. Metallo-pharmaceuticals (cell culture assays, determining mode of activity).
3. Organometallic compounds (e.g. new concepts in combinatorial catalysis, elucidation of reaction mechanisms using in situ high pressure spectroscopic methods).
4. Supramolecular coordination chemistry (combinatorial methodologies).
5. Computer modelling of inorganic and organometallic systems. Techniques from other fields which could find uses in inorganic chemistry (e.g. atomic force microscopy).

The specific content will be chosen by the instructors and will be renewed every year.

Keywords

Inorganic, Organometallic, Materials, Catalysis, Spectroscopy, Theory.

Learning Prerequisites**Important concepts to start the course**

Masters level knowledge of inorganic/organometallic chemistry.