Module Description 21-SC-23 Lab Course in Inorganic Chemistry for Alignment

Faculty of Chemistry

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This module guide reflects the current state and is subject to change. Up-to-date information and the latest version of this document can be found online via the page

https://ekvv.uni-bielefeld.de/sinfo/publ/modul/694343723

The current and valid provisions in the module guide are binding and further specify the subject-related regulations (German "FsB") published in the Official Announcements of Bielefeld University.

Non-official translation of the module descriptions. Only the German version is legally binding.

21-SC-23 Lab Course in Inorganic Chemistry for Alignment

Faculty

Faculty of Chemistry

Person responsible for module

Prof. Dr. Thorsten Glaser

Prof. Dr. Berthold Hoge

Prof. Dr. Norbert W. Mitzel

Regular cycle (beginning)

Every winter semester

Credit points

5 Credit points

Competencies

After completing the lab course, the students are familiar with handling chemical hazardous substances. They are capable of making preparations for conducting chemical reactions in the field of inorganic chemistry. The students understand the necessity of precise work in preparative inorganic and analytical chemistry. They are able to adequately prepare for simple and advanced experiments in inorganic chemistry using appropriate literature. This includes not only theoretical foundations but also researching and summarizing the potential hazards of relevant chemicals with the aid of relevant databases. They have learned to independently and safely conduct simple and advanced inorganic experiments with the help of written instructions and the provision of any necessary new working techniques. They are proficient in maintaining a laboratory journal in a manner that complies with good scientific practice. The students can comprehensively evaluate experimental results based on the theoretical knowledge they have acquired and are capable of presenting their findings in a scientific discussion.

Content of teaching

The module includes experiments aimed at acquiring practical experience in the laboratory. The selection of experiments is made individually based on the students' prior knowledge.

Recommended previous knowledge

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Necessary requirements

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Explanation regarding the elements of the module

Module structure: 1 uPr [1]

Courses

Title	Type	Regular cycle	Workload [5]	LP[2]
Lab Course in Inorganic Chemistry	internship / laboratory internship	SoSe	150 h (70 + 80)	5

Examinations

Allocated examiner	Type	Weighting	Workload	LP[2]
Person responsible for module is examiner *The portfolio of scientific experiments comprises 8-12 experiments, the elements of which are examined during the course. The examination components of an experiment are basically the following four elements, which are completed one after the other:* *1. review of prior knowledge including safety-relevant aspects* *2. carrying out the experiment and recording the execution, observations and results* *3. preparation of a written experiment protocol or an oral presentation of the results* *4. discussion of the experimental protocol, the results and the theory of the experiment (final examination)* *Subsequent elements of the experiment can only be started if the previous elements have been passed. In the case of individual experiments, individual elements may be omitted or, in relation to point 2, replaced by theorised elements after appropriate notification, provided that the learning objectives associated with the experiment are thereby achieved. An attempt is passed if all four elements have been completed and fulfil the requirements despite existing deficiencies.* *If an element of an attempt is not passed, there are two options:* *a) The entire attempt can be repeated or* *b) individual elements can be repeated if elements have already been assessed as "passed" and individual learning objectives of the attempt have therefore been achieved.* *This is decided by the person authorised to conduct the examination.* *The attempt or individual elements of an attempt can be repeated a maximum of once in this way. A total of two attempts per practical course and portfolio can be repeated in the aforementioned sense.*	Portfolio	without grades	-	-

Legend

1 The module structure displays the required number of study requirements and examinations.

2 LP is the short form for credit points.

3 The figures in this column are the specialist semesters in which it is recommended to start the module. Depending on the individual study schedule, entirely different courses of study are possible and advisable.

4 Explanations on mandatory option: "Obligation" means: This module is mandatory for the course of the studies; "Optional obligation" means: This module belongs to a number of modules available for selection under certain circumstances. This is more precisely regulated by the "Subject-related regulations" (see navigation).

5 Workload (contact time + self-study)

SoSe Summer semester

WiSe Winter semester

SL study requirement

Pr Examination

bPr Number of examinations with grades

uPr Number of examinations without grades