che414 - Research Laboratory Course in Physical Chemistry

Module label: Research Laboratory Course in Physical Chemistry
Module code: che414
Credit points: 15.0 KP
Workload: 450 h
Used in course of study: Master's Programme Chemistry > Mastermodule

Module responsibility
- Gunther Wittstock
- Katharina Al-Shamery

Authorized examiners
- Katharina Al-Shamery
- Gunther Wittstock
- Mehtap Özaslan
- Carsten Dosche
- Izabella Brand

Module counselling
- Gunther Wittstock
- Katharina Al-Shamery

Entry requirements
Skills to be acquired in this module: Students acquire practical skills in complex instrumental methods of Physical Chemistry and apply them for solving a scientific problem. They learn the handling as well as presentation of research results. They use original literature, scripts and handbooks and operational procedures to prepare and conduct complex experiments.

Module contents
Master of Science
Students select 3 method courses out of the catalogue from physical chemistry. The courses should be related to the topic and requirements of the research exercise. Exceptions are possible after consultation with the student advisors of this module (Al-Shamery, Wittstock). Each method course comprises self-study, class-room instruction, a preset experiment and data evaluation.

PhD program Interface Science
Students may select method courses for their further qualification (1-2 KP each) and attend a colloquium (30 min pass/fail) at the end of the method course. PhD students can only select method courses that have not been part of their MSc. curriculum.

Themen der Methodenkurse

Ständige Angebote
- scanning electrochemical microscopy (Wittstock, SoSe)
- x-ray photoelectron spectroscopy (Wittstock, Dosche, SoSe)
- impedanz spectroscopy (Dosche, SoSe)
- polarisation modulation infrared reflection absorption spectroscopy (Brand, SoSe)
- rotating ring-disk electrode (Özaslan, SoSe)
- transmission electron microscopy (Al-Shamery, WiSe)

Reader's advisory
Links
Languages of instruction: German, English
Duration (semesters): 2 Semester
Module frequency: halbjährlich
Module capacity: unlimited
Module level: MM (Mastermodul)
Moduleart: Wahlpflicht

Examination
Type of examination
Final exam of module
Time of examination
Type of examination
Course type
Comment
SWS
Frequency
Workload attendance
<table>
<thead>
<tr>
<th>Type</th>
<th>Time (h)</th>
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<td>Seminar</td>
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<tr>
<td>Practical</td>
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**Total time of attendance for the module**

308 h