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**Modulbezeichnung:** **Energy Materials - Lab (EnMat-Lab)** **5 ECTS**  
(Energy Materials - Lab)

Modulverantwortliche/r: Dirk M. Guldi  
Lehrende: Dirk M. Guldi, Christian Ehli

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Startsemester: SS 2022	Dauer: 1 semester	Turnus: halbjährlich (WS+SS)
Präsenzzeit: 105 Std.	Eigenstudium: 45 Std.	Sprache: Englisch

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**Lehrveranstaltungen:**

- Attendance at lab course is compulsory!
  - Attendance at safety instructions is compulsory!
  - A valid laboratory insurance is mandatory for participation in the lab course - see: [www.laborversicherung.de](http://www.laborversicherung.de)
- Energy Materials - LAB (SS 2022, Praktikum, 7 SWS, Dirk M. Guldi et al.)

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**Inhalt:**

- Practical introduction to electrochemical techniques
- Guided work on the characterization of electroactive materials
- Attempts to solve independently a scientific problem
- Documentation of experimental results

**Lernziele und Kompetenzen:**

Students

- plan and perform own electrochemical experiments
- characterize electroactive materials by common electrochemical methods
- analyze, interpret, and discuss electrochemical experimental results
- discuss and evaluate current electrochemical publications.

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**Verwendbarkeit des Moduls / Einpassung in den Musterstudienplan:**

Das Modul ist im Kontext der folgenden Studienfächer/Vertiefungsrichtungen verwendbar:

[1] **Chemistry (Master of Science)**

(Po-Vers. 2020w | NatFak | Chemistry (Master of Science) | Ergänzende Wahlpflichtmodule | Advances in Energy Materials | Energy Materials - Lab)

[2] **Molecular Science (Master of Science): ab 1. Semester**

(Po-Vers. 2020w | NatFak | Molecular Science (Master of Science) | Compulsory elective module | Advances in Energy Materials | Energy Materials - Lab)

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**Studien-/Prüfungsleistungen:**

Energy Materials - Lab (Prüfungsnummer: 65441)

Prüfungsleistung, Praktikumsleistung

Anteil an der Berechnung der Modulnote: 100%

weitere Erläuterungen:

Graded Lab Protocol of 30 - 50 pages (plus raw data documentation)

Prüfungssprache: Englisch

Erstablingung: SS 2022, 1. Wdh.: WS 2022/2023

1. Prüfer: Dirk M. Guldi

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**Organisatorisches:**

**Please note:**

- Students have to register for the module (check registration periods)!
- Lab course **Energy Materials - Lab (EnMat-Lab)** is held as an in-class-course!

The lab course takes place in one of the participating research groups!

**Bemerkungen:**

- Within the Compulsory Elective Module "Advances in Energy Materials" in M.Sc. Chemistry or M.Sc. Molecular Science (20 ECTS)!
- The module can be taken as part of the Elective Module (5 ECTS, not graded)!