

Modulbezeichnung: **Organic thin films (OTF)** **5 ECTS**
(Organic thin films)

Modulverantwortliche/r: Rainer Fink
Lehrende: Rainer Fink

Startsemester: WS 2021/2022 Dauer: 1 Semester Turnus: jährlich (WS)
Präsenzzeit: 45 Std. Eigenstudium: 105 Std. Sprache: Englisch

Lehrveranstaltungen:

Organic Thin Films (WS 2021/2022, Vorlesung mit Übung, 3 SWS, Rainer Fink)
Seminar Organic thin films (WS 2021/2022, Seminar, 1 SWS, Rainer Fink)

Inhalt:

- Molecular interactions and molecular self-organization
- Influence of molecular geometry and functionalization
- Thin film preparation techniques: Langmuir-Blodgett, Self-Assembled Monolayers (SAMs), other solvent-based techniques (e.g. spin-casting, doctor blading, etc.), vacuum sublimation
- Analytical techniques, in-situ analysis
- Effect of templates
- Organic thin film applications
- Seminars will be based on recent literature

Lernziele und Kompetenzen:

Students

- get insight into the major preparation techniques of organic thin films
- are able to evaluate to prepare organic thin film specimens
- know to analyse thin film specimens with respect to structural and electronic properties
- are aware of recent studies and modern applications of organic thin films

Verwendbarkeit des Moduls / Einpassung in den Musterstudienplan:

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

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

(Po-Vers. 2020w | NatFak | Chemistry (Master of Science) | Wahlmodule | Organic thin films)

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

(Po-Vers. 2020w | NatFak | Molecular Science (Master of Science) | Elective modules | Organic thin films)

Studien-/Prüfungsleistungen:

Organic thin films (Prüfungsnummer: 65451)

Prüfungsleistung, mündliche Prüfung, Dauer (in Minuten): 20

Anteil an der Berechnung der Modulnote: 100%

weitere Erläuterungen:

O20(PL): Oral examination (20 minutes) or alternative examination according to FAU Corona Statutes!

Prüfungssprache: Englisch

Erstablesung: WS 2021/2022, 1. Wdh.: WS 2021/2022

1. Prüfer: Rainer Fink

Organisatorisches:

Please note:

- Module will be taught only in winter term
- Students have to register for the module (check registration periods)
- Registration/further information available via **StudOn**

Bemerkungen:

Module compability:

- lecture module can be taken as part of the Elective Module!