



Vorlesungsankündigung

Organic Electronics

SoSe 2025

Prof. Dr. rer. nat. Thomas Riedl

Wahlvorlesung im Master-Studiengang

- Elektrotechnik (PO2009/2016/2021) Vertiefungsrichtung „Polymer Electronics and Novel Technologies“ im Bereich „Materials and Processes“
- Elektrotechnik (PO2009/2016/2021) Vertiefungsrichtung „Automotive“ im Bereich „Assistance and Infotainment Systems“
- Elektrotechnik (PO2002) im Wahlpflichtbereich „Device Technology and Signal Processing“ dem Modul „Nanotechnology and Nanodevices“
- Smart Materials and Systems (PO2024) im Wahlpflichtbereich "Materials and Fundamentals"
- Wirtschaftsingenieurwesen (PO 2017/2021, aktualisierte Version 2023)
„Energiemanagement“ im Bereich „Energietechnische Systeme und Komponenten“,
„Informationstechnik“ im Bereich „Elektronik“,
„Automotive“ im Bereich „Assistenzsysteme“

Not long ago, it was hard to imagine that there could be any use for polymers beyond plastic bags or electrical insulators etc. With the discovery of organic semiconductors this view has changed completely: The field of organic (opto-)electronics was born and has matured significantly in recent years. Some products, like displays based on organic light emitting diodes (OLEDs) and organic solar cells have already entered the market. Organic semiconductors allow for an essentially novel class of electronics, that can be light weight, highly efficient, flexible, and even transparent.

This lecture will provide an introduction to the exciting field of organic semiconductors and devices. In practical courses, you will have the opportunity to fabricate and characterize organic devices (e.g. TFTs, solar cells, ...) in our lab.



Scope

- Organic semiconductors
- Technological aspects
- Organic transistors
- Organic memory
- Large area electronics
- Organic energy
 - Photovoltaics
 - Energy storage
- Organic light emitting devices
 - OLEDs
 - Organic Lasers
- Market prospects for organic electronics
- Novel materials for photovoltaics and light emission

Moodle Key: OrgEI2025

Start: Friday, **11. April 2025**, 10:15 h

Where: FH 4

