

Bachelor/ Master Thesis

Miniplants | Heterogeneous Catalysis | Modeling | Chemical Reaction Engineering | Process Engineering

Our group:

The Multiphase Catalysis Group in the Department of Molecular Catalysis at the Max Planck Institute for Chemical Energy Conversion (MPI CEC) is currently looking for students interested in conducting research in the field of catalysis and reaction engineering. Bachelor and Master students as well as researchers are most welcome.

Our research is focused on green chemistry, catalysis and process intensification. We work at the interface between chemistry and engineering and therefore offer a very versatile work environment. Projects include the development of new reactions, design of suitable catalysts, and scale-up of processes into continuously operated miniplants.

Your thesis: You will work on optimizing a miniplant by using data-driven approaches, first principle modeling, or a combination of both to produce green chemicals. One of your tasks may involve modifying the current experimental setup design.

We offer:

- A green and sustainable chemistry related project
- Work directly on the interface between research and industry
- A fun international environment at a great institution, with state-of-the-art laboratories with the latest analytics, which were opened less than a year ago
- HiWi contract and salary for 6 months

Requirements:

- Basic Python skills or eagerness to learn it for implementing data-driven approaches
- Interest in applied machine learning and data based methods
- Knowledge of process control, chemical reaction- and thermal process engineering

If this description resonates with you and you're interested in completing your thesis with us, please feel free to reach out me. Include a brief overview of your background, your interests, and your reasons for wanting to join the team.

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