



MAX-PLANCK INSTITUT FÜR
CHEMISCHE ENERGIEKONVERSION

Master or Bachelor Thesis (f/m/d)
catalysis | process intensification | *in situ* analytics

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:

A newly developed catalyst system allows for the one-pot preparation of vicinal diols at benign reaction conditions. Your task will be to investigate the reaction system in more detail and to deliver a proof of concept by screening various substrates. The gathered knowledge of substrate screening will be put into practice in an already existing project dealing with the preparation of an important commodity chemical from renewable sources.

What is waiting for you?

- A sustainable chemistry related project
- Working with high pressure autoclaves
- Working with a microwave reactor
- Various analytical techniques: GC-FID, GC-MS, NMR
- A great working atmosphere at a renowned institution with state-of-the-art equipment

Requirements:

- interest and motivation to work in the field of homogeneous catalysis
- Some knowledge of the English language due to the international working environment
- Base level working experience in organic chemistry and working under inert conditions

If this project has caught your interest, do not hesitate to contact me!

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