

The **Research Center for Pharmaceutical Engineering (RCPE)** is a global leader in pharmaceutical engineering sciences. We help our partners to create and manufacture advanced medicines for patients around the world, through optimizing products and processes.



WE ARE OFFERING A

PAID DIPLOMA/ MASTER'S THESIS

INVESTIGATION OF INDUSTRIAL RELEVANT
SYNTHESES IN A CONTINUOUS REACTION
CALORIMETER
REF. NO. DA 144

To dedicated students of **chemistry, pharmaceutical engineering, chemical engineering** or related disciplines, we offer an opportunity to write a paid Diploma/Master's thesis. The project is conducted in close cooperation with the **Institute of Process and Particle Engineering, TU Graz**.

OBJECTIVE:

The goal of this work is to **investigate industrial relevant syntheses** with a **continuous isothermal reaction calorimeter for milli- and micro-fluidic applications**.

In particular the objectives of this work are:

- Characterization of industrial relevant syntheses regarding mixing as well as substance properties, reaction heat, and reaction kinetics with an existing flow calorimeter
- Adaption and improvement of a continuous reaction calorimeter utilizing the advantages of additive manufacturing, i.e., 3D printing of metals, ceramics and polymers
- Monitoring and controlling of the calorimeter via open source electronics and software

WITHIN THE FRAMEWORK OF THIS DIPLOMA/ MASTER'S THESIS WE OFFER THE FOLLOWING:

- Extensive participation in a top-level and industrially relevant research project in an international environment
- Supervised training in the task
- Assistance of experienced staff with the implementation of innovative ideas
- Access to highly modern infrastructure on campus of Graz University of Technology
- Assistance with the publication of results

FINANCING:

- Compensation on the basis of a service contract

IF YOU ARE INTERESTED IN WRITING YOUR THESIS AT THE INTERFACE BETWEEN UNIVERSITY RESEARCH AND INDUSTRY/ BUSINESS AND TO CONTRIBUTE TO THE OPTIMIZATION OF PRODUCT AND PROCESS DEVELOPMENT IN THE PHARMACEUTICAL INDUSTRY, PLEASE CONTACT US INDICATING THE REFERENCE NUMBER.

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