

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

## PAID DIPLOMA / MASTER'S THESIS

# OPTIMIZATION OF A CONTINUOUS MANUFACTURING LINE FOR POTENT APIS

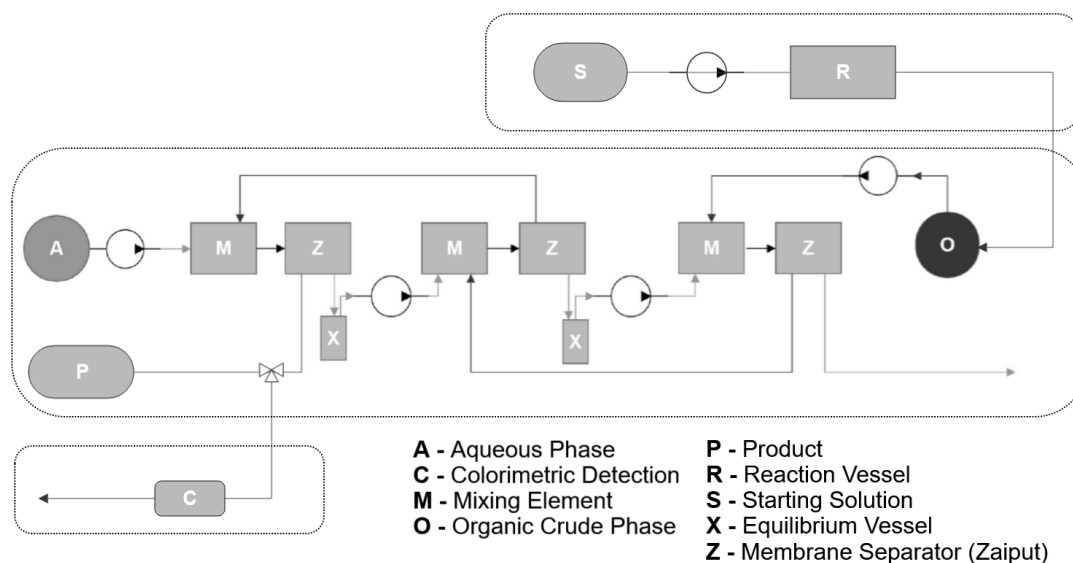
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To dedicated students of CHEMISTRY, CHEMICAL ENGINEERING, and PROCESS ENGINEERING who want to participate in an industry-related project.

## Objective

Among experts, the **continuous manufacturing of APIs** (Active Pharmaceutical Ingredients) is considered the next big **leap in the pharmaceutical industry**. Therefore, implementing an automated, continuous manufacturing line is one of the most exciting and **challenging chemical engineering endeavors**. A flawlessly-working, transition-free setup can be achieved by optimizing each unit operation regarding its subsequently installed counterparts.

In this setup, an organometallic reaction, carried out in flow, is followed by a counter-current operated **extraction unit utilizing membrane separators**. **On-line colorimetric detection** of the pollutant validates the functionality of the extraction unit.



## Tasks

- Literature research on continuous manufacturing and organometallic reactions
- **Optimize the working principle** of each unit operation on an already existing framework
- **Control and automate lab equipment** via the python serial module
- Assist experienced staff & work independently by **contributing your innovative idea**

## Within the framework of this diploma/master's thesis, we offer the following

- Participation in a top-level and industrially relevant research project
- Possibility of getting a second authorship in a scientific paper
- Access to highly modern infrastructure on the campus of Graz University of Technology

## Financing

Compensation based on a service contract

## Contact

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