

**PAID BACHELOR'S THESIS / CONSTRUCTION THESIS**

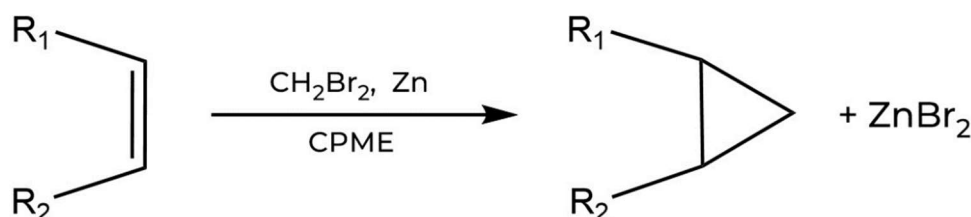
# CONTINUOUS MANUFACTURING OF HIGHLY POTENT APIS

Ref. No.DA174

To dedicated students of **CHEMISTRY, CHEMICAL ENGINEERING, and PROCESS ENGINEERING** who want to participate in an industry-related K1 project.

## Objective

Since many new and promising drug candidates use the cyclopropyl ring as a molecular feature, the **Simmons-Smith reaction**, depicted below, is **highly relevant** to the pharmaceutical industry. This type of **organometallic reaction** utilizes activated zinc to form cyclopropanes starting from alkenes. Although the reaction mechanism is well studied, little about its **implementation in flow** is known.



## Tasks:

- Investigate the reaction mechanism and **improve the synthesis in flow**.
- **Perform a DoE** to find the reactions' optimum conditions.
- Contribute your findings to a **scientific publication**

## 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
- The assistance of experienced staff with the implementation of innovative ideas
- Access to highly modern infrastructure on the campus of Graz University of Technology

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

## Contact

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