



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich



The use of micro-structured reactors in the chemical and bioengineering lab-exercises

During the end of their bachelor program, the chemical and bioengineering students are brought into contact with ongoing research. Small groups of 3 to 4 students visit different research groups where they actively participate for 4 days in an ongoing project and learn to write a short scientific report. One of the topics we offer is the use of micro-reactors for monitoring kinetics of fast exothermic oxidation reactions with peroxides as oxidants. Such reactions demand an excellent control over temperature and residence time to get reliable data. For many of the students, this is the first time they come into contact with laminar-flow reactors. For this introduction, we use the modular Labtrix Start set-up. Since micro-structured reactor technology is becoming increasingly important in industrial settings, especially in the fine-chemical industry, this experience allows the students to obtain practical knowledge of great value to their future career.

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