Chair of Bioseparation Engineering
TUM School of Engineering and Design
Technical University of Munich

BioSE

Master's or Bachelor's thesis / Internship

Keywords: Sample preparation | Analytical methods | HPLC | soy whey | food samples

Project Description

Soy whey, despite its nutritional composition in terms of proteins, carbohydrates, fatty acids and other valuable components, is not accepted by consumers due to its sour taste. As a result, this side stream is usually cost-intensively disposed or added to animal feed. The objective of this project is to utilize these valuable components present in soy whey through *de novo* synthesis or biotransformation using a fermentation process.

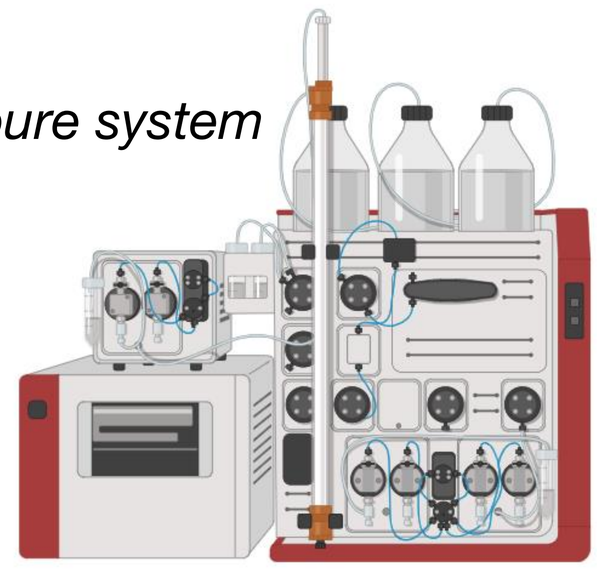
The aim is to biotechnologically isolate aroma compounds through downstream processing techniques. The resulting aroma compounds can be subsequently utilized as food additives. In this thesis, experiments will be conducted using a DoE plan to find optimal parameters for aroma compounds extraction followed by a scale-up to an ÄKTA pure chromatography system.

Profile

- Bachelor or master student in biotechnology, (bio)chemistry, chemistry, food technology or similar
- Structured, precise and independent work
- Lab experience (analytical and preparative techniques) – *ideal, but not required*
- Willingness to learn

- **Start date**: flexible
- Language: EN/DE

ÄKTA pure system



Fermented samples used for DSP

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