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

BioSE

Master's thesis

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

Project Description

In recent years, there has been a significant global rise in the demand for of soy-based products like tofu. However, their production leads to the generation of side streams such as soy (tofu) whey.

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 produce natural flavours and subsequently isolate those through downstream processing techniques. The resulting aroma compounds can be subsequently utilized as food additives.

Profile

- Structured and independent work
- Motivation to work as a team
- Bachelor or master student in biotechnology, (bio)chemistry, chemistry, food technology or similar
- Lab experience (analytical and preparative techniques) – *ideal, but not required*
- **Start date**: ASAP, from June/July
- Language: EN/DE

Fermented samples used for DSP

Sabrina Styblova | s.styblova@tum.de | Chair of Bioseparation Engineering | Room MW2437