



Bachelorthesis –Projectwork – Masterthesis– from november 2023

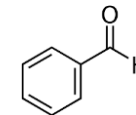
Fermentation of acid whey and soy whey to generate interesting new aromacompounds and mycoprotein

Whey and soy whey are produced in large quantities during cheese or tofu production. However, their use in the food industry is very limited because the sensory properties are not well accepted by consumers. As a result, the industry is forced to dispose of these waste products in a cost- and energy-intensive manner. Since these by-products still contain a small amount of minerals, a new method for utilizing them is being sought to make optimal use of the remaining nutrients.

The goal of this project is to produce natural flavors and mycoprotein through the fermentation of whey and soy whey with Basidiomycetes (club fungi). The main research work is divided into three areas: fermentation modulation, advanced flavor analysis, and functionality of mycoprotein. The aim is to improve the fermentation process to achieve the maximum yield of flavor and mycelium when using soy whey and whey. The flavor profiles of the liquid phase and the mycelium will be examined qualitatively and quantitatively using sensory and instrumental (GC-MS-O) flavor analysis. Additionally, the techno-functional properties of the liquid phase and the mycelium will be characterized.



Mycoprotein as an alternative proteinsource



Production of natural aroma compounds

Kontakt

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