Chair of Bioseparation Engineering
TUM School of Engineering and Design
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BioSE

Bachelor's /Semester thesis

Screening and Optimization of Culture Media for Efficient Fermentation of Basidiomycetes

Keywords: Basidiomycetes fermentation | sustainable process | upstream

Project Description

Filamentous fungi in particularly basidiomycets or wood rotting fungi are beneficial to humankind as they have a lot of biomolecules which have different applications. The project aim to grow these fungi in a sustainable way.

The objective of this project is to ferment the filamentous fungi, in a sustainable way as well as to try the different media to have the maximum biomass produce from it. And study the growth pattern in different media.

Fermentation Process for Basidiomycetes

Tasks

1. Literature review
2. Screening the different media for optimal growth of fungi
3. Cultivation in shake flasks to scale up to a fermenter and optimization of the process for the maximum biomass generation
4. Studying the growth pattern of fungi

Profile

- Structured and independent work
- Motivation to work as a team/ willing to learn
- Bachelor or Master student in biotechnology (IBT, MBT), biochemistry, biology, microbiology, or similar
- **Start date**: as soon as possible or in Mar
- Language: English

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