

Master's thesis

Effect of thermochemical treatment on cellulose-rich residues and their biogas yield

We are searching for a motivated master's student to support our team within an EU-project. The research work is suitable for a master's thesis.

Background

The energetic exploitation of wastes is gaining more importance due to constantly increasing energy demand and increasing costs for energy supply as well as the ongoing food-or-fuel discussion.

The working group "waste utilization and waste treatment" is leading partner in an ongoing EU-project including 7 other partners from research and industry. The project's goal is the increase of biogas yields due to implementation of a 3-step process.

The aim of the thesis will be to find optimal parameters for thermochemical pre-treatment of different lignocellulosic substrates. The goal is to reach sufficient amounts of sugars but minimum amounts of thermal by-products. Furthermore the pre-treated residues will be fermented anaerobically and the process will be monitored continuously.



Methods

- Experiments to thermo-chemical pre-treatment of cellulose-rich residues
- Conduct and monitor batch- and continuous fermentations
- Analytics

Your profile

- Master's student
- Interested in environmental biotechnology and renewable energy

Start: as soon as possible
Financial support possible

Info & Contact:

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