Publications:

Biogas upgrading and utilization: Current status and perspectives
Publication: Research - peer-review › Review – Annual report year: 2018

Co-digestion and model simulations of source separated municipal organic waste with cattle manure under batch and continuously stirred tank reactors
Publication: Research - peer-review › Journal article – Annual report year: 2018

Life cycle assessment of different strategies for energy and nutrient recovery from source sorted organic fraction of household waste
Publication: Research - peer-review › Journal article – Annual report year: 2018

Mechanical pretreatment for increased biogas production from lignocellulosic biomass; predicting the methane yield from structural plant components
Publication: Research - peer-review › Journal article – Annual report year: 2018

Photocatalytic inactivation of Vibrio fischeri using Fe₂O₃-TiO₂-based nanoparticles
Publication: Research - peer-review › Journal article – Annual report year: 2018

Process performance and modelling of anaerobic digestion using source-sorted organic household waste
Publication: Research - peer-review › Journal article – Annual report year: 2018

TiO₂–AgCl Based Nanoparticles for Photocatalytic Production of Phenolic Compounds from Lignocellulosic Residues
Publication: Research - peer-review › Journal article – Annual report year: 2018

A review on prospects and challenges of biological H₂S removal from biogas with focus on biotrickling filtration and microaerobic desulfurization
Publication: Research - peer-review › Review – Annual report year: 2017

Bioaugmentation with hydrolytic microbes to improve the anaerobic biodegradability of lignocellulosic agricultural residues
Publication: Research - peer-review › Journal article – Annual report year: 2017

Effect of micro-aeration and inoculum type on the biodegradation of lignocellulosic substrate
Publication: Research - peer-review › Journal article – Annual report year: 2017

Enhancing biogas production from recalcitrant lignocellulosic residue
Publication: Research › Ph.D. thesis – Annual report year: 2017
Improving the energy balance of grass-based anaerobic digestion through combined harvesting and pretreatment
Publication: Research - peer-review › Journal article – Annual report year: 2017

Mechanical pretreatment at harvesting increases the bioenergy output from marginal land grasses
Publication: Research - peer-review › Journal article – Annual report year: 2017

Process performance and comparative metagenomic analysis during co-digestion of manure and lignocellulosic biomass for biogas production
Publication: Research - peer-review › Journal article – Annual report year: 2017

TiO₂/UV based photocatalytic pretreatment of wheat straw for biogas production
Publication: Research - peer-review › Journal article – Annual report year: 2017

Forward osmosis treatment of effluents from anaerobic digestion: correlation between membrane performance and biogas potential
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

Improving methane production from digested manure biofibers by mechanical and thermal alkaline pretreatment
Publication: Research - peer-review › Journal article – Annual report year: 2016

Improving the energy balance of grass-based anaerobic digestion through harvesting optimization
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Methane Production and Kinetic Modeling for Co-digestion of Manure with Lignocellulosic Residues
Publication: Research - peer-review › Journal article – Annual report year: 2016

The microbiome of biogas reactors treating lignocellulosic substrates revealed different mechanisms for carbohydrates utilization
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

TiO₂ assisted photo-oxidative pretreatment of wheat straw for biogas production
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Anaerobic Mono- and Co-digestion of Mechanically Pretreated Meadow Grass for Biogas Production
Publication: Research - peer-review › Journal article – Annual report year: 2015

Application of comminution machines to enhance the anaerobic biodegradability of ensiled meadow grass
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Biogas production from ensiled meadow grass; effect of mechanical pretreatments and rapid determination of substrate biodegradability via physicochemical methods
Publication: Research - peer-review › Journal article – Annual report year: 2015

Mechanical Pretreatment to Increase the Bioenergy Yield for Full-scale Biogas Plants
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Effect of mechanical pre-treatment methods on the anaerobic digestibility and structure change of meadow grass for biogas production
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014
Foam suppression in overloaded manure-based biogas reactors using antifoaming agents
Publication: Research - peer-review › Journal article – Annual report year: 2014

Antifoaming effect of chemical compounds in manure biogas reactors
Publication: Research - peer-review › Journal article – Annual report year: 2013

Foaming in manure based digesters: Effect of overloading and foam suppression using antifoam agents
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Projects:

New technology for an efficient utilization of meadow grass in biogas reactor
Project: PhD