Research outputs:

16s rRNA gene sequencing and radioisotopic analysis reveal the composition of ammonia acclimatized methanogenic consortia
Research output: Research - peer-review › Journal article – Annual report year: 2019

Co-digestion of Laminaria digitata with cattle manure: A unimodel simulation study of both batch and continuous experiments
Research output: Research - peer-review › Journal article – Annual report year: 2019

Co-digestion of municipal waste biopulp with marine macroalgae focusing on sodium inhibition
Research output: Research - peer-review › Journal article – Annual report year: 2019

Control of anaerobic digestion for maximal biogas production under dynamic conditions
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2019

Graphene based ZnO nanoparticles to depolymerize lignin-rich residues via UV/iode process
Research output: Research - peer-review › Journal article – Annual report year: 2019

Innovative operation of microbial fuel cell-based biosensor for selective monitoring of acetate during anaerobic digestion
Research output: Research - peer-review › Journal article – Annual report year: 2019

Microbial profiling during anaerobic digestion of cheese whey in reactors operated at different conditions
Research output: Research - peer-review › Journal article – Annual report year: 2019

Miscanthus straw as substrate for biosuccinic acid production: Focusing on pretreatment and downstream processing
Research output: Research - peer-review › Journal article – Annual report year: 2019

Novel ecological insights and functional roles during anaerobic digestion of saccharides unveiled by genome-centric metagenomics
Research output: Research - peer-review › Journal article – Annual report year: 2019

Process performance and microbial community structure in thermophilic trickling biofilter reactors for biogas upgrading
Research output: Research - peer-review › Journal article – Annual report year: 2019

The Potential of Bioelectrochemical Sensor for Monitoring of Acetate During Anaerobic Digestion: Focusing on Novel Reactor Design
Research output: Research - peer-review › Journal article – Annual report year: 2019
The Potential of Biogas; The Solution to Energy Storage
Research output: Research - peer-review › Journal article – Annual report year: 2019

Microbial electrolytic disinfection process for highly efficient Escherichia coli inactivation
Research output: Research - peer-review › Journal article – Annual report year: 2018

Acclimation to extremely high ammonia levels in continuous biomethanation process and the associated microbial community dynamics
Research output: Research - peer-review › Journal article – Annual report year: 2018

Amino acids production focusing on fermentation technologies – A review
Research output: Research - peer-review › Review – Annual report year: 2018

Ammonia inhibition threshold during continuous biomethanation process
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Anaerobic co-digestion of macroalgae biomass with cattle manure under high salinity conditions
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

A novel process for volatile fatty acids production from syngas by integrating with mesophilic alkaline fermentation of waste activated sludge
Research output: Research - peer-review › Journal article – Annual report year: 2018

A proposed mechanism for the ammonia-LCFA synergetic co-inhibition effect on anaerobic digestion process
Research output: Research - peer-review › Journal article – Annual report year: 2018

Bioelectrochemical systems serve anaerobic digestion process for process monitoring and biogas upgrading
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Bio-Electro-Fenton processes for wastewater treatment: advances and prospects
Research output: Research - peer-review › Journal article – Annual report year: 2018

Bio-Electro-Fenton process for the degradation of Non-Steroidal Anti-Inflammatory Drugs in wastewater
Research output: Research - peer-review › Journal article – Annual report year: 2018

Biogas and its opportunities—A review
Research output: Research - peer-review › Review – Annual report year: 2018

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

Biorefineries: Focusing on a Closed Cycle Approach with Biogas as the Final Step
Research output: Research - peer-review › Book chapter – 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
Research output: Research - peer-review › Journal article – Annual report year: 2018

Control of anaerobic reactor treating cattle manure for maximal biogas production under dynamic conditions
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018
Converting mesophilic upflow sludge blanket (UASB) reactors to thermophilic by applying axenic methanogenic culture bioaugmentation
Research output: Research - peer-review › Journal article – Annual report year: 2018

Current as an indicator of ammonia concentration during wastewater treatment in an integrated microbial electrolysis cell - Nitrification system
Research output: Research - peer-review › Journal article – Annual report year: 2018

Effect of different ammonia sources on aceticlastic and hydrogenotrophic methanogens
Research output: Research - peer-review › Journal article – Annual report year: 2018

Electricity generation and microbial communities in microbial fuel cell powered by macroalgal biomass
Research output: Research - peer-review › Journal article – Annual report year: 2018

Energy recovery from wastewater microalgae through anaerobic digestion process: Methane potential, continuous reactor operation and modelling aspects
Research output: Research - peer-review › Journal article – Annual report year: 2018

Evaluation of enzymatic hydrolysis effects on fermentative production of lactic acid from municipal bio-waste
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Evaluation of microalgae production coupled with wastewater treatment
Research output: Research - peer-review › Journal article – Annual report year: 2018

Ex-situ biogas upgrading in thermophilic trickle bed reactors
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Factors influencing the fate of antibiotic resistance genes during thermochemical pretreatment and anaerobic digestion of pharmaceutical waste sludge
Research output: Research - peer-review › Journal article – Annual report year: 2018

Hybrid biogas upgrading in a two-stage thermophilic reactor
Research output: Research - peer-review › Journal article – Annual report year: 2018

Hydrogen-Fueled Microbial Pathways in Biogas Upgrading Systems Revealed by Genome-Centric Metagenomics
Research output: Research - peer-review › Journal article – Annual report year: 2018

Impact of graphene on ZnO assisted photocatalysis for degradation of lignin rich substrates by UV/Iodide process
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Integrated production of cellulosic bioethanol and succinic acid from rapeseed straw after dilute-acid pretreatment
Research output: Research - peer-review › Journal article – Annual report year: 2018

Life cycle assessment of castor-based biorefinery: a well to wheel LCA
Research output: 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
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2018
Metagenomic binning reveals the functional roles of core abundant microorganisms in twelve full-scale biogas plants
Research output: Research - peer-review › Journal article – Annual report year: 2018

Microalgal process-monitoring based on high-selectivity spectroscopy tools: status and future perspectives
Research output: Research - peer-review › Review – Annual report year: 2018

Microbial activity response to hydrogen injection in thermophilic anaerobic digesters revealed by genome-centric metatranscriptomics
Research output: Research - peer-review › Journal article – Annual report year: 2018

Microbial electrochemical separation of CO₂ for biogas upgrading
Research output: Research - peer-review › Journal article – Annual report year: 2018

Microbial fuel cell-based biosensor for toxic carbon monoxide monitoring
Research output: Research - peer-review › Journal article – Annual report year: 2018

Microbial protein as an alternative protein source enabling circular bioeconomy
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Nickel spiking to improve the methane yield of sewage sludge
Research output: Research - peer-review › Journal article – Annual report year: 2018

Nutrient recovery from industrial wastewater as single cell protein by a co-culture of green microalgae and methanotrophs
Research output: Research - peer-review › Journal article – Annual report year: 2018

Performance and genome-centric metagenomics of thermophilic single and two-stage anaerobic digesters treating cheese wastes
Research output: Research - peer-review › Journal article – Annual report year: 2018

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

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

Recovery of acetic, succinic and lactic acid through Forward Osmosis – a novel down-streaming approach
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Recovery of acetic, succinic and lactic acid through Forward Osmosis – a novel down-streaming approach
Research output: Research - peer-review › Poster – Annual report year: 2018

Removal of microorganisms from seawater in order to prevent biofouling in water desalination membranes
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Research in organic waste as resources: How to implement circular bio-economy in the urban context?
Research output: Research › Sound/Visual production (digital) – Annual report year: 2018

Role of nano-sized compounds in anaerobic digestion of wheat straw
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018
Salinity-gradient energy driven microbial electrosynthesis of value-added chemicals from CO₂ reduction
Research output: Research - peer-review › Journal article – Annual report year: 2018

Simultaneous biogas upgrading and biochemicals production using anaerobic bacterial mixed cultures
Research output: Research - peer-review › Journal article – Annual report year: 2018

Spatial Distribution and Diverse Metabolic Functions of Lignocellulose-Degrading Uncultured Bacteria as Revealed by Genome-Centric Metagenomics
Research output: Research - peer-review › Journal article – Annual report year: 2018

Sustainable bioenergy and biofuels innovation challenge
Research output: Research - peer-review › Report chapter – Annual report year: 2018

Taxonomy of anaerobic digestion microbiome reveals biases associated with the applied high throughput sequencing strategies
Research output: Research - peer-review › Journal article – Annual report year: 2018

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

Toxic effect of H₂S on methanotrophic single cell protein production by Methylocapsa Acidiphila
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Two-year microbial adaptation during hydrogen-mediated biogas upgrading process in a serial reactor configuration
Research output: Research - peer-review › Journal article – Annual report year: 2018

Valorisation of Effluents from Anaerobic Digestion as Single Cell Protein – Focus on Safe Gas Supply
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Visible light driven nanoparticle for degradation of organic dye in aqueous solution
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Acclimation of ammonia tolerant methanogenic consortia using different bioreactor types
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Acclimation to extremely high ammonia levels during continuous biomethanation process
Research output: Research - peer-review › Paper – Annual report year: 2017

Anaerobic granular sludge for simultaneous biomethanation of synthetic wastewater and CO with focus on the identification of CO-converting microorganisms
Research output: Research - peer-review › Journal article – Annual report year: 2017

A novel archaeal species belonging to Methanoculleus genus identified via de-novo assembly and metagenomic binning process in biogas reactors
Research output: Research - peer-review › Journal article – Annual report year: 2017

An overview of electron acceptors in microbial fuel cells
Research output: Research - peer-review › Review – Annual report year: 2017

Antibiotic Resistance Genes and Correlations with Microbial Community and Metal Resistance Genes in Full-Scale Biogas Reactors As Revealed by Metagenomic Analysis
Research output: Research - peer-review › Journal article – Annual report year: 2017
A review on prospects and challenges of biological \( \text{H}_2\text{S} \) removal from biogas with focus on biotrickling filtration and microaerobic desulfurization
Research output: Research - peer-review › Review – Annual report year: 2017

A systematic methodology to extend the applicability of a bioconversion model for the simulation of various co-digestion scenarios
Research output: Research - peer-review › Journal article – Annual report year: 2017

Batch, fed-batch and CSTR reactors as cultivation systems to acclimate ammonia tolerant methanogenic consortia
Research output: Research - peer-review › Poster – Annual report year: 2017

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

Bioelectricity production and microbial communities in microbial fuel cell powered by macroalgal biomass
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Bio-electrolytic sensor for rapid monitoring of volatile fatty acids in anaerobic digestion process
Research output: Research - peer-review › Journal article – Annual report year: 2017

Biological caproate production by Clostridium kluyveri from ethanol and acetate as carbon sources
Research output: Research - peer-review › Journal article – Annual report year: 2017

Biological systems for simultaneous methanation of \( \text{CO}_2 \) and \( \text{H}_2 \) by anaerobic microorganisms
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Butanol fermentation of the brown seaweed Laminaria digitata by Clostridium beijerinckii DSM-6422
Research output: Research - peer-review › Journal article – Annual report year: 2017

Characterization of the planktonic microbiome in upflow anaerobic sludge blanket reactors during adaptation of mesophilic methanogenic granules to thermophilic operational conditions
Research output: Research - peer-review › Journal article – Annual report year: 2017

Co-cultivation of Green Microalgae and Methanotrophic Bacteria for Single Cell Protein Production from Wastewater
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Comparison of Fenton, UV-Fenton and nano-\( \text{Fe}_3\text{O}_4 \) catalyzed UV-Fenton in degradation of phloroglucinol under neutral and alkaline conditions: Role of complexation of \( \text{Fe}^{3+} \) with hydroxy group in phloroglucinol
Research output: Research - peer-review › Journal article – Annual report year: 2017

Detailing the start-up and microalgal growth performance of a full-scale photobioreactor operated with bioindustrial wastewater
Research output: Research - peer-review › Journal article – Annual report year: 2017

Different cultivation methods to acclimatise ammonia-tolerant methanogenic consortia
Research output: Research - peer-review › Journal article – Annual report year: 2017

Effect of micro-aeration and inoculum type on the biodegradation of lignocellulosic substrate
Research output: Research - peer-review › Journal article – Annual report year: 2017
Effect of nitrogen source and acclimatization on specific growth rates of microalgae determined by a high throughput in vivo microplate autofluorescence method
Research output: Research - peer-review › Poster – Annual report year: 2017

Efficient treatment of aniline containing wastewater in bipolar membrane microbial electrolysis cell-Fenton system
Research output: Research - peer-review › Journal article – Annual report year: 2017

Electricity generation and microbial community in response to short-term changes in stack connection of self-stacked submersible microbial fuel cell powered by glycerol
Research output: Research - peer-review › Journal article – Annual report year: 2017

Electrochemical monitoring of ammonia during anaerobic digestion
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Enriched ammonia-tolerant methanogenic cultures as bioaugmentation inocula in continuous biomethanation processes
Research output: Research - peer-review › Journal article – Annual report year: 2017

Ex-situ biogas upgrading and enhancement in different reactor systems
Research output: Research - peer-review › Journal article – Annual report year: 2017

High efficient ethanol and VFAs production from gas fermentation: effect of acetate, gas and inoculum microbial composition
Research output: Research - peer-review › Journal article – Annual report year: 2017

Improving the energy balance of grass-based anaerobic digestion through combined harvesting and pretreatment
Research output: Research - peer-review › Journal article – Annual report year: 2017

Insights on the activity of the anaerobic digestion microbiome by means of metatranscriptomic functional investigation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

In-situ biogas upgrading process: modeling and simulations aspects
Research output: Research - peer-review › Journal article – Annual report year: 2017

Integrated electrochemical-biological process as an alternative mean for ammonia monitoring during anaerobic digestion of organic wastes
Research output: Research - peer-review › Journal article – Annual report year: 2017

Intermittent provision of H₂ and CO₂ in up-flow reactors for ex-situ biogas upgrading
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

iTRAQ quantitative proteomic analysis reveals the pathways for methanation of propionate facilitated by magnetite
Research output: Research - peer-review › Journal article – Annual report year: 2017

Laminaria digitata as potential carbon source in heterotrophic microalgae cultivation for the production of fish feed supplement
Research output: Research - peer-review › Journal article – Annual report year: 2017

Macroalgae Laminaria digitata and Saccharina latissima as Potential Biomasses for Biogas and Total Phenolics Production; Focusing on Seasonal and Spatial Variations of the Algae
Research output: Research - peer-review › Journal article – Annual report year: 2017

Mechanical pretreatment at harvesting increases the bioenergy output from marginal land grasses
Research output: Research - peer-review › Journal article – Annual report year: 2017
Microbial community changes in methanogenic granules during the transition from mesophilic to thermophilic conditions
Research output: Research - peer-review › Journal article – Annual report year: 2016

Microbial community dynamics during a successful acclimation process to extremely high ammonia levels in continuous anaerobic digester
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Microbial electrochemical sensor for online ammonia monitoring of waste streams
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Microbial electrolytic capture, separation and regeneration of CO₂ for biogas upgrading
Research output: Research - peer-review › Journal article – Annual report year: 2017

Microbial population dynamics in urban organic waste anaerobic co-digestion with mixed sludge during a change in feedstock composition and different hydraulic retention times
Research output: Research - peer-review › Journal article – Annual report year: 2017

Novel bio-electro-Fenton technology for azo dye wastewater treatment using microbial reverse-electrodialysis electrolysis cell
Research output: Research - peer-review › Journal article – Annual report year: 2017

Novel protocol for lutein extraction from microalga Chlorella vulgaris
Research output: Research - peer-review › Journal article – Annual report year: 2017

Optimization of hydrogen dispersion in thermophilic up-flow reactors for ex situ biogas upgrading
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2017

Salinity-gradient energy driven microbial electrosynthesis of hydrogen peroxide
Research output: Research - peer-review › Journal article – Annual report year: 2017

Seaweed as innovative feedstock for energy and feed – Evaluating the impacts through a Life Cycle Assessment
Research output: Research - peer-review › Journal article – Annual report year: 2017

The impact of anode acclimation strategy on microbial electrolysis cell treating hydrogen fermentation effluent
Research output: Research - peer-review › Journal article – Annual report year: 2017

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

Wirelessly powered submerged-light illuminated photobioreactors for efficient microalgae cultivation
Research output: Research - peer-review › Journal article – Annual report year: 2017

System and method to control h₂o₂ level in advanced oxidation processes
Research output: Research › Patent – Annual report year: 2016

Acclimation of continuous biomethanation process to extremely high ammonia levels
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017
Alternate switching between MFC and MEC for H₂O₂ synthesis and residual removal in Bioelectro-Fenton system
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

Alternative co-digestion scenarios for efficient fixed-dome reactor biomethanation processes
Research output: Research - peer-review › Journal article – Annual report year: 2016

Ammonia inhibition on hydrogen enriched anaerobic digestion of manure under mesophilic and thermophilic conditions
Research output: Research - peer-review › Journal article – Annual report year: 2016

Ammonia - LCFA synergetic co-inhibition effect in manure-based continuous biomethanation process
Research output: Research - peer-review › Journal article – Annual report year: 2016

Anaerobic modeling for improving synergy and robustness of a manure co-digestion process
Research output: Research - peer-review › Journal article – Annual report year: 2017

An innovative process for biogas upgrading by the microbial electrolysis cell
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Bioflocculation of green microalgae using activated sludge and potential for biogas production
Research output: Research - peer-review › Poster – Annual report year: 2016

Co-digestion of food and garden waste with mixed sludge from wastewater treatment in continuously stirred tank reactors
Research output: Research - peer-review › Journal article – Annual report year: 2016

Co-digestion of microalgae and activated sludge following a novel bioflocculation method
Research output: Research - peer-review › Poster – Annual report year: 2016

Comparative analysis of taxonomic, functional, and metabolic patterns of microbiomes from 14 full-scale biogas reactors by metagenomic sequencing and radioisotopic analysis
Research output: Research - peer-review › Journal article – Annual report year: 2016

Deeper insight into the structure of the anaerobic digestion microbial community; the biogas microbiome database is expanded with 157 new genomes
Research output: Research - peer-review › Journal article – Annual report year: 2016

Dynamic bioconversion mathematical modelling and simulation of urban organic waste co-digestion in continuously stirred tank reactor
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Dynamic functional characterization and phylogenetic changes due to Long Chain Fatty Acids pulses in biogas reactors
Research output: Research - peer-review › Journal article – Annual report year: 2016

Evaluation of minerals and vitamins in the Danish cultivated sugar kelp
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Extraction of alginate from Sargassum muticum: process optimization and study of its functional activities
Research output: Research - peer-review › Journal article – Annual report year: 2016

Forward osmosis treatment of effluents from anaerobic digestion: correlation between membrane performance and biogas potential
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016
Harvesting microalgae using activated sludge can decrease polymer dosing and enhance methane production via co-digestion in a bacterial-microalgal process
Research output: Research - peer-review › Journal article – Annual report year: 2016

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

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

Innovative microbial electrochemical process for H₂O₂ synthesis and residual H₂O₂ removal for wastewater treatment
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

In-situ biogas upgrading in thermophilic granular UASB reactor: key factors affecting the hydrogen mass transfer rate
Research output: Research - peer-review › Journal article – Annual report year: 2016

Integrated production of cellulosic bioethanol and succinic acid from industrial hemp in a biorefinery concept
Research output: Research - peer-review › Journal article – Annual report year: 2016

Low-sludge age EBPR process for resource recovery – microbial and biochemical process characterization
Research output: Research - peer-review › Poster – Annual report year: 2016

Mesophilic and thermophilic alkaline fermentation of waste activated sludge for hydrogen production: Focusing on homoacetogenesis
Research output: Research - peer-review › Journal article – Annual report year: 2016

Metagenomic analysis and functional characterization of the biogas microbiome using high throughput shotgun sequencing and a novel binning strategy
Research output: Research - peer-review › Journal article – Annual report year: 2016

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

Methane production from formate, acetate and H₂/CO₂; focusing on kinetics and microbial characterization
Research output: Research - peer-review › Journal article – Annual report year: 2016

Microbial and biochemical process characterization of a low-sludge age EBPR process for resource recovery
Research output: Research - peer-review › Poster – Annual report year: 2016

Microbial electrochemical monitoring of volatile fatty acids during anaerobic digestion
Research output: Research - peer-review › Journal article – Annual report year: 2016

Microbial Electrochemical Systems and Technologies: It Is Time To Report the Capital Costs
Research output: Research › Comment/debate – Annual report year: 2016

Microbial electrosynthesis of hydrogen peroxide in microbial reverse-electrodialysis electrolysis cell
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

Monitoring of volatile fatty acids during anaerobic digestion using a microbial electrochemical sensor
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016
Optimising the anaerobic co-digestion of urban organic waste using dynamic bioconversion mathematical modelling
Research output: Research - peer-review › Journal article – Annual report year: 2016

Optimization of biomethanation focusing on high ammonia loaded processes

Recent developments on biofuels production from microalgae and macroalgae
Research output: Research › Journal article – Annual report year: 2016

Taxonomy and functional roles of biogas microbiota binned from multiple metagenomes of anaerobic digestion systems
Research output: Research › Conference abstract for conference – Annual report year: 2017

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

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

Towards a standardization of biomethane potential tests
Research output: Research - peer-review › Journal article – Annual report year: 2016

Untangling the Effect of Fatty Acid Addition at Species Level Revealed Different Transcriptional Responses of the Biogas Microbial Community Members
Research output: Research - peer-review › Journal article – Annual report year: 2016

Using a combination of binning strategies and taxonomic approaches to unravel the anaerobic digestion microbiome
Research output: Research › Conference abstract for conference – Annual report year: 2016

Valorization of macroalga Saccharina latissima as novel feedstock for fermentation-based succinic acid production in a biorefinery approach and economic aspects
Research output: Research - peer-review › Journal article – Annual report year: 2016

Variation in biochemical composition of Saccharina latissima and Laminaria digitata along an estuarine salinity gradient in inner Danish waters
Research output: Research - peer-review › Journal article – Annual report year: 2016

Recovery of ammonia and sulfate from waste streams and bioenergy production via bipolar bioelectrodialysis
Research output: Research - peer-review › Journal article – Annual report year: 2015

Alternate switching between microbial fuel cell and microbial electrolysis cell operation as a new method to control H₂O₂ level in Bioelectro-Fenton system
Research output: Research - peer-review › Journal article – Annual report year: 2015

Ammonia effect on hydrogenotrophic methanogens and syntrophic acetate oxidizing bacteria
Research output: Research › Conference abstract for conference – Annual report year: 2015

Ammonia effect on hydrogenotrophic methanogens and syntrophic acetate oxidizing bacteria
Research output: Research › Poster – Annual report year: 2015
Ammonia effect on hydrogenotrophic methanogens and syntrophic acetate oxidizing bacteria
Research output: Research - peer-review › Journal article – Annual report year: 2015

Ammonia tolerant enriched methanogenic cultures as bioaugmentation inocula to alleviate ammonia inhibition in continuous anaerobic reactors
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Ammonia tolerant enriched methanogenic cultures as bioaugmentation inocula to alleviate ammonia inhibition in continuous anaerobic reactors
Research output: Research - peer-review › Poster – Annual report year: 2015

Anaerobic co-digestion of agricultural by-products with manure, for enhanced biogas production
Research output: Research - peer-review › Journal article – Annual report year: 2015

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

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

Bioelectrochemical recovery of waste-derived volatile fatty acids and production of hydrogen and alkali
Research output: Research - peer-review › Journal article – Annual report year: 2015

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

Biogas upgrading by injection of hydrogen in a two-stage Continuous Stirred-Tank Reactor system
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Biogas Upgrading via Hydrogenotrophic Methanogenesis in Two-Stage Continuous Stirred Tank Reactors at Mesophilic and Thermophilic Conditions
Research output: Research - peer-review › Journal article – Annual report year: 2015

Bioremediation Potential of Sugarkelp, Saccharina Latissima, Cultivated in a Commercial Off-Shore Integrated Multi-Trophic Aquaculture
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Characterization of nutrient removal and microalgal biomass production on an industrial waste-stream by application of the deceleration-stat technique
Research output: Research - peer-review › Journal article – Annual report year: 2015

Co-Digestion of Food Waste and Garden Waste With WTTP Mixed Sludge in CSTR
Research output: Research - peer-review › Poster – Annual report year: 2016

Combined anaerobic digestion of green waste with wastewater treatment plant mixed sludge in continuous stirred tank reactor (CSTR)
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Commercial cultivation and bioremediation potential of sugar kelp, Saccharina latissima, in Danish waters
Research output: Research - peer-review › Conference article – Annual report year: 2015
Comparison of mixotrophic to cyclic autotrophic/heterotrophic growth strategies to optimize productivity of Chlorella sorokiniana
Research output: Research - peer-review › Conference article – Annual report year: 2015

Counteracting ammonia inhibition during anaerobic digestion by recovery using submersible microbial desalination cell
Research output: Research - peer-review › Journal article – Annual report year: 2015

Counteracting foaming caused by lipids or proteins in biogas reactors using rapeseed oil or oleic acid as antifoaming agents
Research output: Research - peer-review › Journal article – Annual report year: 2015

Economically Viable Components from Jerusalem Artichoke (Helianthus tuberosus L.) in a Biorefinery Concept
Research output: Research - peer-review › Review – Annual report year: 2016

Effect of ammonia on hydrogenotrophic methanogens and syntrophic acetate oxidizing bacteria
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Effect of nitrogen source and acclimatization on specific growth rates of microalgae determined by a high-throughput in vivo microplate autofluorescence method
Research output: Research - peer-review › Journal article – Annual report year: 2015

Effect of pulse and continuous addition of oleate on microbial communities involved in anaerobic digestion process
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Effects of Benzalkonium Chloride, Proxel LV, P3 Hypochloran, Triton X-100 and DOWFAX 63N10 on anaerobic digestion processes
Research output: Research - peer-review › Journal article – Annual report year: 2015

Effects of triclosan, diclofenac, and nonylphenol on mesophilic and thermophilic methanogenic activity and on the methanogenic communities
Research output: Research - peer-review › Journal article – Annual report year: 2015

Ethanol production from steam exploded rapeseed straw and the process simulation using artificial neural networks
Research output: Research - peer-review › Journal article – Annual report year: 2016

Evaluation of the Danish cultivated sugarkelp as possible future source of ingredients such as minerals and pigments
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

High performance of nanoscaled Fe₂O₃ catalyzing UV-Fenton under neutral condition with a low stoichiometry of H₂O₂: Kinetic study and mechanism
Research output: Research - peer-review › Journal article – Annual report year: 2015

Hydrogen mediated biogas upgrading in a two-stage mesophilic reactor
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Innovative bioelectrochemical-anaerobic-digestion coupled system for ammonia recovery and biomethane production from ammonia-rich residues
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Innovative bioelectrochemical-anaerobic-digestion integrated system for ammonia recovery and bioenergy production from ammonia-rich residues
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015
Laminaria digitata as a potential carbon source for succinic acid and bioenergy production in a biorefinery perspective
Research output: Research - peer-review › Journal article – Annual report year: 2015

Lipids and Composition of Fatty Acids of Saccharina latissima Cultivated Year-round in Integrated Multi-trophic Aquaculture
Research output: Research - peer-review › Journal article – Annual report year: 2015

Macroalga Laminaria digitata as potential carbon source in heterotrophic Chlorella protothekoides cultivation: an innovative biorefinery concept
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

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

Metagenomic analysis on thermophilic biogas reactors fed with high load of Long Chain Fatty Acids (LCFA)
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Microbial diversity and dynamicity of biogas reactors due to radical changes of feedstock composition
Research output: Research - peer-review › Journal article – Annual report year: 2015

Microbial dynamics in anaerobic digestion (AD) reactors with sodium oleate in the substrate
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Microbial electrochemical monitoring of volatile fatty acids during anaerobic digestion
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

New steady-state microbial community compositions and process performances in biogas reactors induced by temperature disturbances
Research output: Research - peer-review › Journal article – Annual report year: 2015

Saltinity-Gradient Energy Driven Microbial Electrosynthesis of Hydrogen Peroxide from Oxygen Reduction
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Seasonal Amino Acid Profile and Nutritional Value of Saccharina Latissima in a Commercial IMTA System
Research output: Research › Conference abstract for conference – Annual report year: 2015

Seasonal variations in the amino acid profile and protein nutritional value of Saccharina latissima cultivated in a commercial IMTA system
Research output: Research - peer-review › Conference article – Annual report year: 2015

Seaweed potentials – evaluation of year-round biomass composition of commercial cultivated sugarkelp- results from project KOMBI
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Solutions for Foaming Problems in Biogas Reactors Using Natural Oils or Fatty Acids as Defoamers
Research output: Research - peer-review › Conference article – Annual report year: 2015

Submersible microbial desalination cell for simultaneous ammonia recovery and electricity production from anaerobic reactors containing high levels of ammonia
Research output: Research - peer-review › Journal article – Annual report year: 2015
The biodegradability of a feedstock is determining the optimal C/N ratios in anaerobic digestion
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Thermochemical pretreatments for enhancing succinic acid production from industrial hemp (Cannabis sativa L.)
Research output: Research - peer-review › Journal article – Annual report year: 2015

Unconventional biomasses as feedstocks for production of biofuels and succinic acid in a biorefinery concept
Research output: Research › Ph.D. thesis – Annual report year: 2015

15 ud af 16 biogasanlæg oplever problemer med skum
Research output: Communication › Journal article – Annual report year: 2015

A bio-electrochemical system for removing inhibitors of anaerobic digestion processes from anaerobic reactors
Research output: Research - Patent – Annual report year: 2014

A Green Micro-Algal Growth Model developed in the Activated Sludge Modeling Framework
Research output: Research - peer-review › Poster – Annual report year: 2014

An Activated Sludge Model for Mixed Green Microalgae (ASM-A): model identification and calibration
Research output: Research - peer-review › Paper – Annual report year: 2014

Anaerobic digestion foaming in full-scale biogas plants: A survey on causes and solutions
Research output: Research - peer-review › Journal article – Annual report year: 2014

Analysis of bacterial communities and bacterial pathogens in a biogas plant by the combination of ethidium monoazide, PCR and Ion Torrent sequencing
Research output: Research - peer-review › Journal article – Annual report year: 2014

An environmentally-friendly fluorescent method for quantification of lipid contents in yeast
Research output: Research - peer-review › Journal article – Annual report year: 2013

A new degassing membrane coupled upflow anaerobic sludge blanket (UASB) reactor to achieve in-situ biogas upgrading and recovery of dissolved CH4 from the anaerobic effluent
Research output: Research - peer-review › Journal article – Annual report year: 2014

An innovative bioelectrochemical-anaerobic digestion-coupled system for in-situ ammonia recovery and biogas enhancement: process performance and microbial ecology
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

A novel bioinformatic strategy to characterise microbial communities in biogas reactors
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Antifoaming effect of rapeseed oil and oleic acid in biogas reactors
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Bioaugmentation as a solution to increase methane production from an ammonia-rich substrate
Research output: Research - peer-review › Journal article – Annual report year: 2014

Bioaugmentation with a hydrogenotrophic methanogen: a powerful tool to overcome ammonia inhibition of anaerobic digestion process
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014
Bioelectrode-based approach for enhancing nitrate and nitrite removal and electricity generation from eutrophic lakes
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Changes in the microbial profile of biogas reactors due to variations in the feedstock composition
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Comparative analysis of the microbial diversity in liquid and foaming layer in biogas reactors
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Comparative microbial analysis before and after foaming incidents in biogas reactors
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Comparison of VFA titration procedures used for monitoring the biogas process
Research output: Research - peer-review › Journal article – Annual report year: 2014

Danish Biomethanation Technologies for Novel Substrates Evaluation in Remote Rural Areas of India
Research output: Research - peer-review › Poster – Annual report year: 2014

Effective harvesting of the microalgae Chlorella protothecoides via bioflocculation with cationic starch.
Research output: Research - peer-review › Journal article – Annual report year: 2014

Effect of mechanical pre-treatment methods on the anaerobic digestibility and structure change of meadow grass for biogas production
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Effect of pH and H₂O₂ dosage on catechol oxidation in nano-Fe₃O₄ catalyzing UV-Fenton and identification of reactive oxygen species
Research output: Research - peer-review › Journal article – Annual report year: 2014

Ethanol production from industrial hemp: effect of combined dilute acid/steam pretreatment and economic aspects
Research output: Research - peer-review › Journal article – Annual report year: 2014

Research output: Research - peer-review › Report – Annual report year: 2014

Foam suppression in overloaded manure-based biogas reactors using antifoaming agents
Research output: Research - peer-review › Journal article – Annual report year: 2014

Integrated multi-trophic aquaculture (combined production of fish, mussels and seaweed)
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Metagenomic analysis of foaming in biogas reactors
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Methods for upgrading of a fuel gas and succinic acid production
Research output: Research › Patent – Annual report year: 2014

Microbial analysis in biogas reactors suffering by foaming incidents
Research output: Research - peer-review › Journal article – Annual report year: 2014

Microbial diversity and dynamicity of biogas reactors fed with different substrates
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014
Microbial electrolysis cells turning to be versatile technology: recent advances and future challenges
Research output: Research - peer-review › Journal article – Annual report year: 2014

Microplate-based method for high-throughput screening of microalgae growth potential
Research output: Research - peer-review › Journal article – Annual report year: 2014

Modelling and assessment of the storage of nutrients in a mixed green microalgae culture
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Nanomodification of the electrodes in microbial fuel cell: impact of nanoparticle density on electricity production and microbial community
Research output: Research - peer-review › Journal article – Annual report year: 2014

Optimization of extraction process of crude alginate from Sargassum muticum by response surface methodology
Research output: Research - peer-review › Poster – Annual report year: 2014

Photomicrobial fuel cell (PFC) for simultaneous organic carbon, nutrients removal and energy production
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Potential of Jerusalem artichoke (Helianthus tuberosus L.) as a biorefinery crop
Research output: Research - peer-review › Journal article – Annual report year: 2014

Removal of organic pollutants in tannery wastewater from wet-blue fur processing by integrated Anoxic/Oxic (A/O) and Fenton: Process optimization
Research output: Research - peer-review › Journal article – Annual report year: 2014

Succinic acid production by fermentation of Jerusalem artichoke tuber hydrolysate with Actinobacillus succinogenes 130Z
Research output: Research - peer-review › Journal article – Annual report year: 2014

The dominant acetate degradation pathway/methanogenic composition in full-scale anaerobic digesters operating under different ammonia levels
Research output: Research - peer-review › Journal article – Annual report year: 2013

The Effect Of Light On Mixed Green Micro-Algal Growth: Experimental Assessment And Modelling
Research output: Research - peer-review › Poster – Annual report year: 2014

Utilization of CO₂ fixating bacterium Actinobacillus succinogenes 130Z for simultaneous biogas upgrading and bio-succinic acid production
Research output: Research - peer-review › Journal article – Annual report year: 2014

A Mixed Green Micro-Algal Model (MAMO) – Model Identification And Calibration Using Synthetic Medium And Nutrient Rich Carbon Depleted Wastewater
Research output: Research - peer-review › Paper – Annual report year: 2013

Anaerobic digestion foaming in Danish full-scale biogas plants: a survey on causes and solutions
Research output: Research › Sound/Visual production (digital) – Annual report year: 2013

Anaerobic digestion for simultaneous sewage sludge treatment and CO biomethanation: process performance and microbial ecology
Research output: Research - peer-review › Journal article – Annual report year: 2013
A new method for in situ nitrate removal from groundwater using submerged microbial desalination-denitrification cell (SMDDC)
Research output: Research - peer-review › Journal article – Annual report year: 2013

A novel and quick method to avoid H₂O₂ interference on COD measurement in Fenton system by Na₂SO₃ reduction and O₂ oxidation.
Research output: Research - peer-review › Journal article – Annual report year: 2013

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

Bioaugmentation of an acetate-oxidising anaerobic consortium in up-flow sludge blanket reactor subjected to high ammonia loads
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Bioaugmentation with an acetate-oxidising consortium as a tool to tackle ammonia inhibition of anaerobic digestion
Research output: Research - peer-review › Journal article – Annual report year: 2013

Bioethanol Production by Carbohydrate-Enriched Biomass of Arthrospira (Spirulina) platensis
Research output: Research - peer-review › Journal article – Annual report year: 2013

Carbohydrate-enriched cyanobacterial biomass as feedstock for bio-methane production through anaerobic digestion
Research output: Research - peer-review › Journal article – Annual report year: 2013

Co-digestion of manure and whey for in situ biogas upgrading by the addition of H₂: process performance and microbial insights
Research output: Research - peer-review › Journal article – Annual report year: 2012

Research output: Research - peer-review › Journal article – Annual report year: 2013

Development and evaluation of a fast screening method of microalgal performance using microplates
Research output: Research - peer-review › Poster – Annual report year: 2013

Development of an algal wastewater treatment concept, based on the selection of microalgal strains with optimal bioextraction characteristics
Research output: Research - peer-review › Poster – Annual report year: 2013

Effect of ammonium and acetate on methanogenic pathway and methanogenic community composition
Research output: Research - peer-review › Journal article – Annual report year: 2013

Effect of organic loading rate and feedstock composition on foaming in manure-based biogas reactors
Research output: Research - peer-review › Journal article – Annual report year: 2013

Effects of hydrothermal pre-treatments on Giant reed (Arundo donax) methane yield
Research output: Research - peer-review › Journal article – Annual report year: 2013

Ethanol production from glucose and xylose by immobilized Thermoanaerobacter pentosaceus at 70 °C in an up-flow anaerobic sludge blanket (UASB) reactor
Research output: Research - peer-review › Journal article – Annual report year: 2013
Extreme thermophilic ethanol production from rapeseed straw: using the newly isolated Thermoanaerobacter pentosaceus and combining it with Saccharomyces cerevisiae in a two-step process
Research output: Research - peer-review › Journal article – Annual report year: 2013

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

Growth of Saccharina and Palmaria compared to chemical and physical parameters in the inner Danish waters
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2013

High effective harvesting of microalgae Chlorella prothetoloides via flocculation with cationic starch
Research output: Research - peer-review › Poster – Annual report year: 2013

Hollow fiber membrane based H-2 diffusion for efficient in situ biogas upgrading in an anaerobic reactor
Research output: Research - peer-review › Journal article – Annual report year: 2013

Hydrogen and methane production from desugared molasses using a two-stage thermophilic anaerobic process
Research output: Research - peer-review › Journal article – Annual report year: 2013

Increased power generation from primary sludge by a submersible microbial fuel cell and optimum operational conditions
Research output: Research - peer-review › Journal article – Annual report year: 2013

Increasing the precision of microplate measurements of algal growth rate
Research output: Research - peer-review › Poster – Annual report year: 2013

Life Cycle Assessment of a brown seaweed-based third-generation biorefinery process
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Life cycle assessment of biofuel production from brown seaweed in Nordic conditions
Research output: Research - peer-review › Journal article – Annual report year: 2013

Lipid profiles of yeast cells under different growth conditions
Research output: Research - peer-review › Poster – Annual report year: 2013

Methods and apparatus for hydrogen based biogas upgrading
Research output: Research › Patent – Annual report year: 2013

Microalgae Biorefinery - Industrial Symbiosis
Research output: Research - peer-review › Poster – Annual report year: 2014

Microwave and thermal pretreatment as methods for increasing the biogas potential of secondary sludge from municipal wastewater treatment plants
Research output: Research - peer-review › Journal article – Annual report year: 2013

Når biogasanlægget skummer over
Research output: Research - peer-review › Journal article – Annual report year: 2013

Performance and microbial community analysis of the anaerobic reactor with coke oven gas biomethanation and in situ biogas upgrading
Research output: Research - peer-review › Journal article – Annual report year: 2013
Simultaneous production of hydrogen and ethanol from waste glycerol by Enterobacter aerogenes KKU-S1
Research output: Research - peer-review › Journal article – Annual report year: 2013

Succinic acid production from Jerusalem artichoke
Research output: Research - peer-review › Poster – Annual report year: 2013

Succinic acid production from Jerusalem artichoke
Research output: Research - peer-review › Paper – Annual report year: 2013

Thermoanaerobacter pentosaceus sp. nov., an anaerobic, extreme thermophilic, high ethanol-yielding bacterium isolated from household waste
Research output: Research - peer-review › Journal article – Annual report year: 2012

Alkaline peroxide pretreatment of rapeseed straw for enhancing bioethanol production by Same Vessel Saccharification and Co-Fermentation
Research output: Research - peer-review › Journal article – Annual report year: 2012

Alternative energy carriers for the transportation sector: Report prepared in framework of Øresund Ecomobility project
Research output: Research › Report – Annual report year: 2012

A simple and rapid method for monitoring dissolved oxygen in water with a submersible microbial fuel cell (SBMFC)
Research output: Research - peer-review › Journal article – Annual report year: 2012

Bioaugmentation strategies of ammonia tolerant methanogenic consortia in continuous stirred tank reactors
Research output: Research - peer-review › Poster – Annual report year: 2013

Bioelectrode-based approach for enhancing nitrate and nitrite removal and electricity generation from eutrophic lakes
Research output: Research - peer-review › Journal article – Annual report year: 2012

Biohydrogen production from arabinose and glucose using extreme thermophilic anaerobic mixed cultures
Research output: Research - peer-review › Journal article – Annual report year: 2012

DSMZ 24726 for second generation bioethanol production
Research output: Research › Patent – Annual report year: 2012

Effect of continuous oleate addition on microbial communities involved in anaerobic digestion process
Research output: Research - peer-review › Journal article – Annual report year: 2012

Effect of substrates and intermediate compounds on foaming in manure digestion systems
Research output: Research - peer-review › Journal article – Annual report year: 2012

Electric power generation by a submersible microbial fuel cell equipped with a membrane electrode assembly
Research output: Research - peer-review › Journal article – Annual report year: 2012

Enrichment of high ammonia tolerant methanogenic culture
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Foaming in manure based digesters: Causes and solutions
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Green macroalgae for biomitigation of nutrients, purification of biogas and energy production
Research output: Research › Poster – Annual report year: 2012
Immobilisation of an ammonia tolerant methanogenic consortium in high performance anaerobic digesters
Research output: Research - peer-review › Poster – Annual report year: 2013

Influence of microbial composition on foam formation in a manure-based digester
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Innovative self-powered submersible microbial electrolysis cell (SMEC) for biohydrogen production from anaerobic reactors
Research output: Research - peer-review › Journal article – Annual report year: 2012

Integrated biogas upgrading and hydrogen utilization in an anaerobic reactor containing enriched hydrogenotrophic methanogenic culture
Research output: Research - peer-review › Journal article – Annual report year: 2012

Microalgal carbohydrates: an overview of the factors influencing carbohydrates production, and of main bioconversion technologies for production of biofuels
Research output: Research - peer-review › Review – Annual report year: 2012

Microalgal Cultivation at Kalundborg Municipal Wastewater Treatment Facility
Research output: Research - peer-review › Poster – Annual report year: 2012

Mikroorganismer kan øge gasudbyttet
Research output: Research - peer-review › Journal article – Annual report year: 2012

Pilot-scale application of an online VFA sensor for monitoring and control of a manure digester
Research output: Research - peer-review › Journal article – Annual report year: 2012

Screening and Optimization of Case Specific Sustainable Mixotrophic Microalgal Medium
Research output: Research - peer-review › Poster – Annual report year: 2013

Self-stacked submersible microbial fuel cell (SSMFC) for improved remote power generation from lake sediments
Research output: Research - peer-review › Journal article – Annual report year: 2012

Simultaneous hydrogen utilization and in situ biogas upgrading in an anaerobic reactor
Research output: Research - peer-review › Journal article – Annual report year: 2011

Surface Area Expansion of Electrodes with Grass-like Nanostructures to Enhance Electricity Generation in Microbial Fuel Cells
Research output: Research - peer-review › Journal article – Annual report year: 2012

Thermophilic anaerobic co-digestion of oil palm empty fruit bunches with palm oil mill effluent for efficient biogas production
Research output: Research - peer-review › Journal article – Annual report year: 2012

Use of a newly isolated extreme thermophile for the production of 2nd generation bio-ethanol
Research output: Research - peer-review › Poster – Annual report year: 2012

Anaerobic co-digestion of by-products from sugar production with cow manure
Research output: Research - peer-review › Journal article – Annual report year: 2011
Anaerobic co-digestion of desugared molasses with cow manure; focusing on sodium and potassium inhibition
Research output: Research - peer-review » Journal article – Annual report year: 2011

Anaerobic Digestion: Process
Research output: Research - peer-review » Book chapter – Annual report year: 2011

Biogas production from potato-juice, a by-product from potato-starch processing, in upflow anaerobic sludge blanket (UASB) and expanded granular sludge bed (EGSB) reactors
Research output: Research - peer-review » Journal article – Annual report year: 2011

Biohydrogen production from desugared molasses (DM) using thermophilic mixed cultures immobilized on heat treated anaerobic sludge granules
Research output: Research - peer-review » Journal article – Annual report year: 2011

Biomethanation and Its Potential
Research output: Research - peer-review » Journal article – Annual report year: 2011

Comment on “Parameter Identification and Modeling of the Biochemical Methane Potential of Waste Activated Sludge” (1)
Research output: Research - peer-review » Journal article – Annual report year: 2011

Comparison of UASB and EGSB reactors performance, for treatment of raw and deoiled palm oil mill effluent (POME)
Research output: Research - peer-review » Journal article – Annual report year: 2011

Cultivation of the green macroalgae Ulva lactuca and Ulvaria splendens for biofuels production
Research output: Research » Poster – Annual report year: 2011

Effect of xylose and nutrients concentration on ethanol production by a newly isolated extreme thermophilic bacterium
Research output: Research - peer-review » Journal article – Annual report year: 2011

Electricity generation and microbial community response to substrate changes in microbial fuel cell
Research output: Research - peer-review » Journal article – Annual report year: 2011

Electricity generation by microbial fuel cells fuelled with wheat straw hydrolysate
Research output: Research - peer-review » Journal article – Annual report year: 2011

Emerging Biological Technologies: Biofuels and Biochemicals
Research output: Research - peer-review » Book chapter – Annual report year: 2011

Enhanced bioenergy recovery from rapeseed plant in a biorefinery concept
Research output: Research - peer-review » Journal article – Annual report year: 2011

Enhancement of bioenergy production from organic wastes by two-stage anaerobic hydrogen and methane production process
Research output: Research - peer-review » Journal article – Annual report year: 2011

High rate algal biomass production for food, biochemicals and Biofuels: An Indo-Danish collaboration project.
Research output: Research » Conference abstract for conference – Annual report year: 2011

In situ microbial fuel cell-based biosensor for organic carbon
Research output: Research - peer-review » Journal article – Annual report year: 2011
Long-term effect of inoculum pretreatment on fermentative hydrogen production by repeated batch cultivations: homoacetogenesis and methanogenesis as competitors to hydrogen production
Research output: Research - peer-review › Journal article – Annual report year: 2011

Metangas kan blive en genvej til brintsamfundet
Research output: Research - peer-review › Journal article – Annual report year: 2012

Micro-aerobic, anaerobic and two-stage condition for ethanol production by Enterobacter aerogenes from biodiesel-derived crude glycerol
Research output: Research › Conference article – Annual report year: 2011

Microwave pretreatment of rape straw for bioethanol production: Focus on energy efficiency
Research output: Research › Journal article – Annual report year: 2011

Nitrate as an Oxidant in the Cathode Chamber of a Microbial Fuel Cell for Both Power Generation and Nutrient Removal Purposes
Research output: Research - peer-review › Journal article – Annual report year: 2011

Performance and microbial community analysis of two-stage process with extreme thermophilic hydrogen and thermophilic methane production from hydrolysate in UASB reactors
Research output: Research - peer-review › Journal article – Annual report year: 2011

Simultaneous organic carbon, nutrients removal and energy production in a photomicrobial fuel cell (PFC)
Research output: Research - peer-review › Journal article – Annual report year: 2011

Submersible microbial fuel cell for electricity production from sewage sludge
Research output: Research - peer-review › Journal article – Annual report year: 2011

Submersible microbial fuel cell sensor for monitoring microbial activity and BOD in groundwater: Focusing on impact of anodic biofilm on sensor applicability
Research output: Research - peer-review › Journal article – Annual report year: 2011

Thermophilic Biohydrogen Production
Research output: Research › Book chapter – Annual report year: 2011

Use of extremophilic bacteria for second generation bioethanol production
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Anaerobic digestion of maize focusing on variety, harvest time and pretreatment
Research output: Research - peer-review › Journal article – Annual report year: 2010

Biohydrogen production from wheat straw hydrolysate by dark fermentation using extreme thermophilic mixed culture
Research output: Research - peer-review › Journal article – Annual report year: 2010

Biorefinery concept as a sustainable way to produce energy and chemicals from agricultural products
Research output: Research › Conference abstract in proceedings – Annual report year: 2010

Comparative study of mechanical, hydrothermal, chemical and enzymatic treatments of digested biofibers to improve biogas production
Research output: Research - peer-review › Journal article – Annual report year: 2010

Effect of xylose and nutrients concentration on ethanol production by a newly isolated extreme thermophilic Thermoanaerobacter sp.
Electricity Generation from Organic Matters in Biocatalyst-Based Microbial Fuel Cells (MFCs)
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2010

Engineered heat treated methanogenic granules: A promising biotechnological approach for extreme thermophilic biohydrogen production
Research output: Research - peer-review › Journal article – Annual report year: 2010

Extreme thermophilic biohydrogen production from wheat straw hydrolysate using mixed culture fermentation: Effect of reactor configuration
Research output: Research - peer-review › Journal article – Annual report year: 2010

Long-chain fatty acids inhibition and adaptation process in anaerobic thermophilic digestion: Batch tests, microbial community structure and mathematical modelling
Research output: Research - peer-review › Journal article – Annual report year: 2010

Optimization of biogas production from wheat straw stillage in UASB reactor
Research output: Research - peer-review › Journal article – Annual report year: 2010

Possibilities of anaerobic digestion in the Arctic
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Production of bioethanol from wheat straw: An overview on pretreatment, hydrolysis and fermentation
Research output: Research - peer-review › Journal article – Annual report year: 2010

State indicators for monitoring the anaerobic digestion process
Research output: Research - peer-review › Journal article – Annual report year: 2010

Steam treatment of digested biofibers for increasing biogas production
Research output: Research - peer-review › Journal article – Annual report year: 2010

Submersible microbial fuel cell for electricity production from sewage sludge
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Systematic investigation of the effect of feedstock composition, and filamentous bacteria cells on foaming in manure anaerobic digestion systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Thermophilic anaerobic co-digestion of pretreated empty fruit bunches with palm oil mill effluent for efficient biogas production
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Xylose fermentation to biofuels (hydrogen and ethanol) by extreme thermophilic (70°C) mixed culture
Research output: Research - peer-review › Journal article – Annual report year: 2010

Anaerobic digestion of slaughterhouse by-products
Research output: Research - peer-review › Journal article – Annual report year: 2009

Anammox for ammonia removal from pig manure effluents: Effect of organic matter content on process performance
Research output: Research - peer-review › Journal article – Annual report year: 2009
Research output: Research › Report – Annual report year: 2009

A strict anaerobic extreme thermophilic hydrogen-producing culture enriched from digested household waste
Research output: Research › peer-review › Journal article – Annual report year: 2009

Bioaugmentation of an upflow biofilm biohydrogen producing reactors under extreme-thermophilic condition (70 degree C) for improvement fo the hydrogen yield and start up time
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2009

Bioethanol, biohydrogen and biogas production from wheat straw in a biorefinery concept
Research output: Research › peer-review › Journal article – Annual report year: 2009

Biohydrogen production by anaerobic fermentation of waste: .Final Project Report STVF 2058-03-0020
Research output: Research › Report – Annual report year: 2009

Biohydrogen production from xylose at extreme thermophilic temperatures (70 degrees C) by mixed culture fermentation
Research output: Research › peer-review › Journal article – Annual report year: 2009

Biorefineries: converting biomass into valuable products
Research output: Research › Book chapter – Annual report year: 2009

Biorefinery for sustainable fuel production and high value added products from energy crops
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2009

Defining the biomethane potential (BMP) of solid organic wastes and energy crops: a proposed protocol for batch assays
Research output: Research › peer-review › Journal article – Annual report year: 2009

Effect of post-digestion temperature on serial CSTR biogas reactor performance
Research output: Research › peer-review › Journal article – Annual report year: 2009

Effect of pulse and continuous addition of oleate on microbial communities involved in anaerobic digestion process
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2009

Effect of reactor configuration on biogas production from wheat straw hydrolysate
Research output: Research › peer-review › Journal article – Annual report year: 2009

Engineered heat treated methanogenic granules (EHTG): a promising biotechnological approach for high rate extreme thermophilic (70 degrees C) biohydrogen production in expanded granular sludge bed (EGSB) reactors
Research output: Research › peer-review › Conference abstract in journal – Annual report year: 2009

Engineered heat treated methanogenic granules (ETHG): a promising biotechnological approach for high rate extreme thermophilic (70 degree C) biohydrogen production in expanded granular sludge bed (EGSB) reactor
Research output: Research › peer-review › Journal article – Annual report year: 2009

Ex-situ bioremediation of polycyclic aromatic hydrocarbons in sewage sludge
Research output: Research › peer-review › Journal article – Annual report year: 2009

Generation of Electricity and Analysis of Microbial Communities in Wheat Straw Biomass-Powered Microbial Fuel Cells
Research output: Research › peer-review › Journal article – Annual report year: 2009
High yield simultaneous biohydrogen and bioethanol production under extreme thermophilic (70 degree C) mixed culture environment
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2009

High yield simultaneous hydrogen and ethanol production under extreme-thermophilic (70 degrees C) mixed culture environment
Research output: Research - peer-review › Journal article – Annual report year: 2009

Microbial community structure of biohydrogen production process in extreme thermophilic conditions
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2009

Optimering af biogasproduktionen
Research output: Research › Journal article – Annual report year: 2009

Optimisation of biogas production from manure through serial digestion: Lab-scale and pilot-scale studies
Research output: Research - peer-review › Journal article – Annual report year: 2009

Optimization of H2SO4-catalyzed hydrothermal pretreatment of rapeseed straw for bioconversion to ethanol: Focusing on pretreatment at high solids content
Research output: Research - peer-review › Journal article – Annual report year: 2009

Screening Escherichia coli, Enterococcus faecalis, and Clostridium perfringens as Indicator Organisms in Evaluating Pathogen-Reducing Capacity in Biogas Plants
Research output: Research - peer-review › Journal article – Annual report year: 2009

Serial CSTR digester configuration for improving biogas production from manure
Research output: Research - peer-review › Journal article – Annual report year: 2009

Strategies for recovering inhibition caused by long chain fatty acids on anaerobic thermophilic biogas reactors
Research output: Research - peer-review › Journal article – Annual report year: 2009

The effect of different substrates and humic acid on power generation in microbial fuel cell operation
Research output: Research - peer-review › Journal article – Annual report year: 2009

16S rRNA-targeted probes for specific detection of Thermoanaerobacterium spp., Thermoanaerobacterium thermosaccharolyticum, and Caldicellulosiruptor spp. by fluorescent in situ hybridization in biohydrogen producing systems
Research output: Research - peer-review › Journal article – Annual report year: 2008

Anaerobic biodegradation of fluoranthene under methanogenic conditions in presence of surface-active compounds
Research output: Research - peer-review › Journal article – Annual report year: 2008

Biofuel production: A new biorefinery for sustainable energy from crops: conversion of lignocellulose to bioethanol, biohydrogen and biomethane
Research output: Research › Conference abstract for conference – Annual report year: 2008

Biohydrogen production from glucose in upflow biofilm reactors with plastic carriers under extreme thermophilic conditions (70(degree)C)
Research output: Research - peer-review › Journal article – Annual report year: 2008

Biohydrogen production from household solid waste (HSW) at extreme-thermophilic temperature (70 degrees C) - Influence of pH and acetate concentration
Research output: Research - peer-review › Journal article – Annual report year: 2008
Biorefinery: The only way for sustainable biofuel production from energy crops; conversion of lignocellulose to bioethanol, biohydrogen and biomethane
Research output: Research › Conference abstract for conference – Annual report year: 2008

Codigestion of manure and industrial organic waste at centralized biogas plants: process imbalances and limitations
Research output: Research - peer-review › Journal article – Annual report year: 2008

Codigestion of manure and organic waste at centralized biogas plants: Process imbalances and limitations
Research output: Research › Article in proceedings – Annual report year: 2008

Defining the biomethane potential (BMP) of solid organic wastes: a proposed protocol for batch assays
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Defining the biomethane potential (BMP) of solid organic wastes: a proposed protocol for batch assays
Research output: Research › Conference abstract for conference – Annual report year: 2008

Effect of humic acids on electricity generation integrated with xylose degradation in microbial fuel cells
Research output: Research - peer-review › Journal article – Annual report year: 2008

Effect of temperature and active biogas process on passive separation of digested manure
Research output: Research - peer-review › Journal article – Annual report year: 2008

Effects of mixing on methane production during thermophilic anaerobic digestion of manure: Lab-scale & pilot-scale studies
Research output: Research - peer-review › Journal article – Annual report year: 2008

Effects of pH and hydraulic retention time on hydrogen production versus methanogenesis during anaerobic fermentation of organic household solid waste under extreme-thermophilic temperature (70ºC)
Research output: Research - peer-review › Journal article – Annual report year: 2008

Electricity production from xylose using a mediator-less microbial fuel cell
Research output: Research - peer-review › Journal article – Annual report year: 2008

Enrichment and adaptation of extreme-thermophilic (70o C) hydrogen producing bacteria to organic household solid waste by repeated batch cultivation
Research output: Research - peer-review › Journal article – Annual report year: 2008

High-rate continuous hydrogen production by Thermoanaerobacterium thermosaccharolyticum PSU-2 immobilized on heat-pretreated methanogenic granules
Research output: Research - peer-review › Journal article – Annual report year: 2008

Importance of temperature and anodic medium composition on microbial fuel cell (MFC) performance
Research output: Research - peer-review › Journal article – Annual report year: 2008

Influence of wastewater characteristics on methane potential in food-processing industry wastewaters
Research output: Research - peer-review › Journal article – Annual report year: 2008

Innovative microbial fuel cell for electricity production from anaerobic reactors
Research output: Research - peer-review › Journal article – Annual report year: 2008
Innovative process scheme for removal of organic matter, phosphorus and nitrogen from pig manure
Research output: Research › peer-review › Journal article – Annual report year: 2008

MICROBIAL FUEL CELL
Research output: Research › Patent – Annual report year: 2008

Microbial fuel cells with acetate, glucose and xylose using humic acid as mediator
Research output: Research › Poster – Annual report year: 2008

Monitoring and control of the biogas process based on propionate concentration using online VFA measurement
Research output: Research › peer-review › Journal article – Annual report year: 2008

Strategies for optimizing recovery of the biogas process following ammonia inhibition
Research output: Research › peer-review › Journal article – Annual report year: 2008

Thermophilic fermentative hydrogen production by the newly isolated Thermoanaerobacterium thermosaccharolyticum PSU-2
Research output: Research › peer-review › Journal article – Annual report year: 2008

Anaerobic Biodegradation, Activity and Inhibition (ABAI) Task Group Meeting 9th to 10th October 2006, in Prague
Research output: Research › Report – Annual report year: 2007

Anaerobic biotechnological approaches for production of liquid energy carriers from biomass
Research output: Research › peer-review › Journal article – Annual report year: 2007

Anaerobic digestion of solid material: multidimensional modelling of continuous-flow reactor with non-uniform influent concentration distributions
Research output: Research › peer-review › Journal article – Annual report year: 2007

An innovative online VFA monitoring system for the anerobic process, based on headspace gas chromatography
Research output: Research › peer-review › Journal article – Annual report year: 2007

Biohydrogen production from glucose in upflow biofilm reactors with plastic carriers under hyperthermophilic condition (70°C)
Research output: Research › peer-review › Poster – Annual report year: 2007

Biorefinery for sustainable biofuel production from energy crops; conversion of lignocellulose to bioethanol, biohydrogen and biomethane
Research output: Research › peer-review › Article in proceedings – Annual report year: 2007

Effect of post-treatments on biodegradability and methane recovery from fibres separated from thermophilically digested cow manure
Research output: Research › peer-review › Poster – Annual report year: 2007

Effect of temperature and anodic medium on power generation in microbial fuel cells (MFCs)
Research output: Research › peer-review › Poster – Annual report year: 2007

Enrichment and adaptation of extreme-thermophilic (70oC) H2 producing bacteria to organic household solid waste by repeated batch cultivations
Research output: Research › peer-review › Article in proceedings – Annual report year: 2007

Genetablering af biogasprocessen
Research output: Communication › Journal article – Annual report year: 2007
High-rate hydrogen production in up-flow anaerobic sludge blanket (UASB) using immobilized thermoanaerobacterium thermosaccharolyticum strain PSU-2 with treated methanogenic granules
Research output: Research - peer-review › Poster – Annual report year: 2007

Homoacetogenesis as the alternative pathway for H2 sink during thermophilic anaerobic degradation of butyrate under suppressed methanogenesis
Research output: Communication › Journal article – Annual report year: 2007

Monitoring and control of the biogas process based on propionate concentration using online VFA measurement
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Optimization of biogas production by co-digesting whey with diluted poultry manure
Research output: Research - peer-review › Journal article – Annual report year: 2007

Optimization of biogas production from manure: Final project report EFP-04
Research output: Research › Report – Annual report year: 2007

Optimization of biogas production from olive-oil mill wastewater, by codigesting with diluted poultry-manure
Research output: Research - peer-review › Journal article – Annual report year: 2007

Re-establishing the biogas process
Research output: Research - peer-review › Journal article – Annual report year: 2007

Removal of residual organic matter, phosphates and ammonium from thermophilically digested pig manure
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

The development of biogas in Sweden and Denmark
Research output: Research - peer-review › Poster – Annual report year: 2007

Acetate oxidation is the dominant methanogenic pathway from acetate in the absence of Methanosaetaceae
Research output: Research - peer-review › Journal article – Annual report year: 2006

Biohydrogen production in granular up-flow anaerobic sludge blanket (UASB) reactors with mixed cultures under hyperthermophilic temperature (70 degree C)
Research output: Research - peer-review › Journal article – Annual report year: 2006

Enhanced biogas recovery by applying post-digestion in large-scale centralized biogas plants
Research output: Research - peer-review › Journal article – Annual report year: 2006

Evaluation of different lab-scale configurations for pig manure treatment (anaerobic codigestion, removal of organic matter and nutrients): A sustainable solution for pig manure treatment: Environmental compliance with the Integrated Pollution Prevention and Control directive (PIGMAN)
Research output: Research › Report – Annual report year: 2006

Research output: Research › Report – Annual report year: 2006

H2/CO2-aetogenesis pathway in anaerobic butyrate degradation with digested manure as inoculum at 55 degree C
Research output: Research › Conference abstract in proceedings – Annual report year: 2006
Hydrogen and methane production from household solid waste in the two-stage fermentation process
Research output: Research - peer-review › Journal article – Annual report year: 2006

Identifiability study of the proteins degradation model, based on ADM1, using simultaneous batch experiments
Research output: Research - peer-review › Journal article – Annual report year: 2006

Lessons learnt from 15 years of ICA in anaerobic digesters
Research output: Research - peer-review › Journal article – Annual report year: 2006

Operational strategies for thermophilic anaerobic digestion of organic fraction of municipal solid waste in continuously stirred tank reactors
Research output: Research - peer-review › Journal article – Annual report year: 2006

Optimering af biogasprocessen
Research output: Communication › Journal article – Annual report year: 2006

Stabilitet og udrådningseffektivitet for danske biogasanlæg
Research output: Research › Report – Annual report year: 2006

Strict anaerobic hyperthermophilic hydrogen producing culture enriched from digested household waste
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2006

Thermophilic anaerobic digestion of source-sorted organic fraction of household municipal solid waste: start-up procedure for continuously stirred tank reactor
Research output: Research - peer-review › Journal article – Annual report year: 2006

Anaerobic degradation of solid material: Importance of initiation centers for methanogenesis, mixing intensity, and 2D distributed model
Research output: Research - peer-review › Journal article – Annual report year: 2005

Anaerobic degradation of urban waste
Research output: Research › Article in proceedings – Annual report year: 2005

Biogasreaktorer i serie kan give op til 15 procent mere gas
Research output: Communication › Journal article – Annual report year: 2005

Development of new ecotoxicity tests adapted to organic wastes to be recycled in agriculture
Research output: Research - peer-review › Poster – Annual report year: 2005

Effect of operating conditions and reactor configuration on efficiency of full-scale biogas plants
Research output: Research - peer-review › Conference article – Annual report year: 2005

Effects of process stability on anaerobic biodegradation of LAS in UASB reactors
Research output: Research - peer-review › Journal article – Annual report year: 2005

Hydrogen and methane production from household solid waste in the two-stage fermentation process
Research output: Research - peer-review › Poster – Annual report year: 2005

Identifiability study of the proteins degradation model, based on ADM1, using simultaneous batch experiments
Research output: Research › Article in proceedings – Annual report year: 2005
Influence of environmental conditions on methanogenic compositions in anaerobic biogas reactors
Research output: Research - peer-review › Journal article – Annual report year: 2005

Investigation of post digestion in large scale centralized biogas plants
Research output: Research - peer-review › Poster – Annual report year: 2005

Investigation of post digestion in large scale centralized biogas plants: No. O604
Research output: Research › Article in proceedings – Annual report year: 2005

Modeling of thermophilic anaerobic digestion of sorted household solid waste
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Online headspace chromatographic method for measuring VFA in biogas reactor
Research output: Research - peer-review › Journal article – Annual report year: 2005

Operational strategies for thermophilic anaerobic digestion of organic fraction of municipal solid waste in continuously stirred tank reactors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Optimisation of serial-CSTR biogas reactors using modeling by ADM1
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Start up of UASB system for hydrogen production with enriched cultures at hyper thermophilic conditions (70 gr. C)
Research output: Research - peer-review › Poster – Annual report year: 2005

Strategies for changing temperature from mesophilic to thermophilic conditions in anaerobic CSTR reactors treating sewage sludge
Research output: Research - peer-review › Journal article – Annual report year: 2005

Anaerobic bioprocessing of sewage sludge, focusing on degradation of linear alkylbenzene sulfonates (LAS)
Research output: Research - peer-review › Journal article – Annual report year: 2004

Anaerobic degradation of phthalic acid esters in sewage sludge
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Application of anaerobic digestion modeling
Research output: Research › Journal article – Annual report year: 2004

Assessment of the anaerobic biodegradability of macropollutants
Research output: Research - peer-review › Journal article – Annual report year: 2004

Bio-hydrogen production by anaerobic fermentation of waste
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Effect of operating conditions and reactor configuration on efficiency of full-scale biogas plants
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Improved nitrogen removal in upflow anaerobic sludge blanket (UASB) reactors by incorporation of Anammox bacteria into the granular sludge
Research output: Research - peer-review › Journal article – Annual report year: 2004
Method for determination of methane potentials of solid organic waste
Research output: Research - peer-review › Journal article – Annual report year: 2004

Nedbrydning af LAS under anaerobe forhold
Research output: Communication › Journal article – Annual report year: 2004

Online headspace chromatographic method for measuring VFA in biogas reactor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Optimal strategy for changing temperature from mesophilic to thermophilic conditions in CSTR reactors treating sewage sludge
Research output: Research › Article in proceedings – Annual report year: 2004

Removal of polycyclic aromatic hydrocarbons (PAHs) from sewage sludge by anaerobic degradation
Research output: Research - peer-review › Journal article – Annual report year: 2004

Sewage sludge for safe recycling on agricultural land: biowaste
Research output: Research › Article in proceedings – Annual report year: 2004

Stabilitet og udrådningseffektivitet for danske biogasanlæg
Research output: Research › Report – Annual report year: 2004

The global role of anaerobic digestion through various governmental waste and energy sustainability policies
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

A new VFA sensor technique for anaerobic reactor systems
Research output: Research - peer-review › Journal article – Annual report year: 2003

Applications of the anaerobic digestion process
Research output: Research - peer-review › Journal article – Annual report year: 2003

Bioprocessing of sewage sludge for safe recycling on agricultural land: BIOWASTE
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2003

Bioprocessing of sewage sludge for safe recycling on agricultural land
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Bioprocessing of sewage sludge for safe recycling on agricultural land - BIOWASTE
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Biowaste - a new European project. Bioprocessing of sewage sludge for safe recycling on agricultural land - BIOWASTE
Research output: Communication › Journal article – Annual report year: 2003

Chemical characteristics and methane potentials of source-separated and pre-treated organic municipal solid waste
Research output: Research - peer-review › Journal article – Annual report year: 2003

Codigestion of manure and organic wastes in centralized biogas plants. Status and future trends
Research output: Research - peer-review › Journal article – Annual report year: 2003
Dynamics of the anaerobic process: Effects of volatile fatty acids
Research output: Research - peer-review › Journal article – Annual report year: 2003

Kinetics and modeling of anaerobic digestion process
Research output: Research - peer-review › Book chapter – Annual report year: 2003

Kinetics of thermophilic, anaerobic oxidation of straight and branched chain butyrate and valerate
Research output: Research - peer-review › Journal article – Annual report year: 2003

Monitoring and control of anaerobic reactors
Research output: Research - peer-review › Book chapter – Annual report year: 2003

Monitoring and control of anaerobic reactors
Research output: Research - peer-review › Journal article – Annual report year: 2003

Parameter identification of thermophilic anaerobic degradation of valerate
Research output: Research - peer-review › Conference article – Annual report year: 2003

Process stability in laboratory continuous stirred tank reactors affect anaerobic degradation of LAS
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Traditional and innovative ways for treatment of municipal wastewater
Research output: Research › Journal article – Annual report year: 2003

Anaerobic biodegradability of macropollutants
Research output: Research › Article in proceedings – Annual report year: 2002

Anaerobic biodegradation of spent sulphite liquor in a UASB reactor
Research output: Research - peer-review › Journal article – Annual report year: 2002

Anaerobic digestion in Denmark: Past, present and future
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Anaerobic digestion model No. 1 (ADM1)
Research output: Research - peer-review › Book – Annual report year: 2002

Anaerobic digestion of olive oil mill effluents together with swine manure in UASB reactors
Research output: Research - peer-review › Journal article – Annual report year: 2002

Anaerobic treatment of sludge: focusing on reduction of LAS concentration in sludge
Research output: Research - peer-review › Journal article – Annual report year: 2002

An innovative process for treatment of municipal wastewater with superior characteristics compared to traditional technologies
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

A novel in-situ sampling and VFA sensor technique for anaerobic systems
Research output: Research - peer-review › Journal article – Annual report year: 2002

Co-digestion of the organic fraction of municipal waste with other waste types
Research output: Research - peer-review › Book chapter – Annual report year: 2002
Co-Digestion of the Organic Fraction of Municipal Waste With Other Waste Types  
Research output: Research - peer-review › Book chapter – Annual report year: 2002

Innovative wastewater treatment process with reduced energy consumption and regeneration of nutrients  
Research output: Research › Poster – Annual report year: 2002

New reactor configurations for optimised anaerobic treatment of slurry waste  
Research output: Research › Poster – Annual report year: 2002

Parameter Identification of thermophilic anaerobic degradation of valerate  
Research output: Research › Article in proceedings – Annual report year: 2002

Parameter Identification of thermophilic anaerobic degradation of valerate  
Research output: Research › Article in proceedings – Annual report year: 2002

The IWA Anaerobic digestion model no 1. (ADM1)  
Research output: Research - peer-review › Journal article – Annual report year: 2002

Anaerobic digestion of organic fraction of municipal solid waste with recirculation of process water  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Anaerobic Digestion of the Organic Fraction of Municipal Solid Waste With Recirculation of Process Water  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Dynamic responses of the anaerobic process to pulses of acetate and propionate  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Mechanisms of oleate inhibition of the anaerobic degradation in upflow anaerobic sludge blanket (UASB) reactors  
Research output: Research › Article in proceedings – Annual report year: 2001

The effects of sustainable waste management policies on anaerobic digestion of organic solid waste  
Research output: Research › Article in proceedings – Annual report year: 2001

Anaerobic transformation of LAS in continuous stirred tank reactors treating sewage sludge  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Degradation of organic contaminants found in organic waste  
Research output: Research - peer-review › Journal article – Annual report year: 2000

Increase of anaerobic degradation of particulate organic matter in full-scale biogas plants by mechanical maceration  
Research output: Research - peer-review › Journal article – Annual report year: 2000

Linear alkylbenzene sulfonates: inhibition effect on acetate and propionate degradation during anaerobic digestion  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Methods for increasing the biogas potential from the recalcitrant organic matter contained in manure  
Research output: Research - peer-review › Conference article – Annual report year: 2000

A comprehensive model of anaerobic bioconversion of complex substrates to biogas  
Research output: Research - peer-review › Journal article – Annual report year: 1999
Anaerobic co-digestion of olive mill effluents together with different wastes
Research output: Research - peer-review › Book chapter – Annual report year: 1999

Degradation of organic contaminants found in organic sludge
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Improved digestion of swine manure in thermophilic biogas reactors
Research output: Research - peer-review › Journal article – Annual report year: 1999

Anaerobic digestion of swine manure: Inhibition by ammonia
Research output: Research - peer-review › Journal article – Annual report year: 1998

An automatic system for simultaneous monitoring of gas evolution in multiple closed vessels
Research output: Research - peer-review › Journal article – Annual report year: 1998

An automatic system for simultaneous monitoring of gas evolution in multiple closed vessels
Research output: Research - peer-review › Journal article – Annual report year: 1998

Bioforgasning: proces. Kapitel 4.11
Research output: Education › Book chapter – Annual report year: 1998

Research output: Education › Book chapter – Annual report year: 1998

Biogasprocessen - styr på mikrobiologien
Research output: Research › Journal article – Annual report year: 1998

Bioprocessing of organic waste for organic contaminants
Research output: Research › Book chapter – Annual report year: 1998

Computertized automatic system for continuous monitoring of gas production in closed systems
Research output: Research - peer-review › Journal article – Annual report year: 1998

Matematisk model for dynamisk simulering af den anaerobe biogas proces
Research output: Research - peer-review › Report – Annual report year: 1998

Methods for increasing the biogas potential from the recalcitrant organic matter contained in manure
Research output: Research - peer-review › Article in proceedings – Annual report year: 1998

Metoder til forøgelse af biogasudbyttet fra de tungt omsættelige dele af det organiske stof i gylle og undersøgelser over svinegylles udrådningsegenskaber
Research output: Research - peer-review › Report – Annual report year: 1998

A mathematical model for simulation of anaerobic codigestion: Supported by grants from the energy research programme from the Danish Energy Ministry
Research output: Research - peer-review › Report – Annual report year: 1996

Codigestion of manure with organic industrial waste. Abstract
Research output: Research › Article in proceedings – Annual report year: 1996
Degradation of lipid containing organic industrial waste
Research output: Research - peer-review › Article in proceedings – Annual report year: 1996

Modellering og regulering af biogasprocessen
Research output: Research - peer-review › Book – Annual report year: 1996

Utilization of different wastes in biogas plants
Research output: Research › Article in proceedings – Annual report year: 1996

Establishment and Characterization of an Anaerobic Thermophilic (55 degrees C) Enrichment Culture Degrading Long-Chain Fatty Acids
Research output: Research - peer-review › Journal article – Annual report year: 1995

Isomerization of n- and i-butyrate in Anaerobic Methanogenic Systems
Research output: Research - peer-review › Journal article – Annual report year: 1995

Volatile Fatty Acids as Indicators of Process Imbalance in Anaerobic Digestors
Research output: Research - peer-review › Journal article – Annual report year: 1995

A Mathematical Model for Dynamic Simulation of Anaerobic Digestion of Complex Substrates: Focusing on Ammonia Inhibition
Research output: Research - peer-review › Journal article – Annual report year: 1993

Projects:

Microalga-based bio-electro-remediation technology for antibiotic-dominated wastewater treatment and microalgae resource utilization study
Project: PhD

Syngas fermentation to biomethanation
Project: PhD

Production of lactic acid from source-sorted organic household waste
Project: PhD

Boosting biomass derived syngas-to-biofuels conversion with microbial electrochemical fermentation
Project: Research

Bioinorganic artificial photosynthesis of single cell protein from carbon dioxide.
Project: PhD

Biological production of n-Hexanol
Project: PhD

Microbial electrochemistry meet UV: For effektive degradation of organic matter
Project: PhD

Powdered bioaugmentation inocula to alleviate ammonia toxicity in anaerobic digesters
Project: PhD

Ex-situ biogas upgrading through biologically mediated CO2 hydrogenation
Project: PhD
Miljøvurdering af organisk husholdningsaffald  
Project: PhD

On-line styring og regulering af biogasanlæg  
Project: PhD

Computational modelling and simulation of anaerobic biomass conversion to biogas, focusing on the effects of substrate characterisation, solid-liquid-gas phase interactions and microbial growth dynamics  
Project: PhD

Innovative bioaugmentation strategies to tackle ammonia inhibition in anaerobic digestion process  
Project: PhD

Innovative bio-electrochemical-anaerobic-digestion coupled system for ammonia recovery and energy production from food-waste residues  
Project: PhD

Innovative microbial electrolysis cell-anaerobic digestion coupled system for ammonia recovery and energy production from ammonia-rich residues  
Project: PhD

Deciphering the microbial ecology in biogas reactors for optimizing the anaerobic digestion process  
Project: PhD

Bioelectrochemical-anaerobic digestion-coupled system for simultaneous recovery and bioenergy production  
Project: PhD

Sustainable Production of Third Generation (3G) Bioenergy Carriers and High Value Aquatic Fish Feed from Macroalgae  
Project: PhD

Improved Anaerobic Digestion of Energy Crops  
Project: PhD

Microbial Fuel Cell - used in direct Conversion of Lignocellulosic Waste to Energy  
Project: PhD

Combined Biohydrogen Biomethane Production from Waste  
Project: PhD

Kinetic Model Development of Anaerobic Fermentation for Hydrogen Production  
Project: PhD

On-line Monitoring and Control of the Biogas Process  
Project: PhD

Production of Biogas and Bioethanol from Organic Raw Materials  
Project: PhD

Optimization of bio-hydrogen production from carbohydrate rich wastes by extreme thermophilic microorganisms  
Project: PhD
Algal biofilter optimization near fish farm  
Project: PhD

Innovative biogas process for ammonia-rich wastes  
Project: PhD

Biogas enhancement and upgrading  
Project: PhD

Development of new microbial fuel cell configuration for optimization of electricity production with simultaneous wastewater treatment  
Project: PhD

Sustainable Production and Utilization of Microalgae for industrial wastewater treatment  
Project: PhD

Biorefinery  
Project: PhD

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

Sustainable Production and Utilization of Microalgae  
Project: PhD

Environmental Assessment of the Management of Garden and Yard Waste  
Project: PhD

Kombinationsopdræt af havbrugfisk, tang, muslinger til foder og konsum  
Project: Research

Innovative bioaugmentation strategies to tackle ammonia inhibition in an-aerobic digestion process  
Project: Research

Innovative bioelectrochemical-anaerobic-digestion coupled system for ammonia recovery and energy production from ammonia-rich residues  
Project: Research

Energy-efficient, community-based water and wastewater-treatment systems for deployment in India  
Project: Research

Integration of biomass and wind power for biogas enhancement and upgrading via hydrogen assisted anaerobic digestion  
Project: Research

Foaming problems in biogas plants  
Project: Research

A novel method to recover ammonia from biogas plants  
Project: Research
An innovative process for simultaneous utilization of hydrogen and in-situ biogas upgrading
Project: Research

FISCH4 – Fish Feed from Food Waste
Project: Research

KOMBI-cultivation: Integrated aquaculture of fish, seaweed, and mussels for feed and food
Project: Research

Innovative biogas process for treating ammonia-rich wastes
Project: Research

The MacroAlgae Biorefinery
Project: Research

Concept proof of usability of ocher as a source of iron in wastewater treatment
Project: Research

Thalis
Project: Research

Optimization of a titration method for monitoring of VFA
Project: Research

Optimal digestion of high ammonia containing wastes
Project: Research

Submersible Microbial Fuel Cell (SMFC) for electricity production from wastewater
Project: Research

Flow cytometer and UV-laser for Confocal Laser Scanning Microscope
Project: Research

High rate algal biomass production for food, feed, biochemicals and biofuels
Project: Research

Integrated European Network for biomass and waste reutilisation for Bio-products
Project: Research

INTERREG IVC
Project: Research

Fuldskael demonstration og dokumentation mv. af seriedrift på gyllebaseret biogasfællesanlæg (Lemvig Biogas)
Project: Research

Biorefinery for sustainable Reliable Economical Fuel production from energy crops. Second call.
Project: Research

START-funding II. Preparation of EU project proposal "Biorefinery for sustainable Reliable Economical Fuel production from energy crops" (Acronym: BioREF)
Project: Research
Clean and environmentally friendly animal waste technologies for fertilizer and energy production
Project: Research

Electricity assisted biological hydrogen production using single chamber membrane-free anaerobic reactor
Project: Research

Highly effective conversion of C5 and C6 sugars to ethanol by new yield type ethanol-tolerant microorganisms: challenge for sustainable 2nd generation bioethanol production from lignocellulose
Project: Research

Foaming problems in biogas plants
Project: Research

Biorefinery for sustainable Reliable Economical Fuel production from energy crops. First call.
Project: Research

START-funding I. Preparation of international proposal "Biorefinery for sustainable Reliable Economical Fuel production from energy crops" (Acronym: BioREF)
Project: Research

Optimization of Microbial Fuel Cells via Directed Bio-Electricigenesis
Project: Research

Biorefinery for Fuel production from energy crops
Project: Research

Microbial community structure related to process conditions: a challenge for improving performance of anaerobic digesters
Project: Research

SAFEWATER. Hazardous chemicals and micro-organisms in urban water management.
Project: Research

Start-programmet. Improved monitoring and control of the biogas process for reliable efficient and cost-effective energy production.
Project: Research

Development bioprocesses for handling and recycling seasonal industrial wastewaters.
Project: Research

Project: Research

Maximization of gaseous energy recovery by simultaneous biohydrogen production and biomethanation.
Project: Research

Mikrobiel fysiologi og økologi.
Project: Research

MFC-Risø. Microbial fuel cell - used in direct conversion of lignocellulosic waste to energy.
Project: Research
PSO-VFA. Anvendelse af online fedtsyresensor for at kontrollere og optimere anaerob processen for lav omkostnings biogas fra gyllen.  
Project: Research

Indsamling og systematisering af den eksisterende viden om gaspotentialet i forskellige typer biomasse og afgrøder.  
Project: Research

Udvikling af innovativ proces for udnyttelse af biomasse til produktion af brint og biogas  
Project: Research

CONTROL-AD4H2. Control of Anaerobic Digestion Processes for Optimisation of Hydrogen Production  
Project: Research

Process imbalance in biogas plants and strategies for prevention and reestablishment of process stability. EFP05  
Project: Research

Hydrogen from biomass. START-programme.  
Project: Research

Biogas Forum Øresund. (INTERREG IIIA Øresundsregionen)  
Project: Research

Monitoring of the anaerobic biogas process by on-line VFA measurement  
Project: Research

Project: Research

Bio-hydrogen production by anaerobic fermentation of waste  
Project: Research

Innovative reactor configurations for biogas production  
Project: Research

Use of membranes for extraction of H2 produced by fermentation  
Project: Research

BIOWASTE. Bioprocessing of sewage sludge for safe recycling on agricultural land  
Project: Research

Kortlægning og dokumentation af procesforhold på danske biogasanlæg.  
Project: Research

Reduction of xenobiotic compounds found in the sewage sludge by bioprocessing. START-programmet.  
Project: Research

Study on anaerobic treatment of sewage sludge for removal of linear alkylbenzene sulfonates (LAS).  
Project: Research
Biogasprogram
Project: Research

Improved monitoring and control of the anaerobic process. START-programmet
Project: Research

Anaerobic degradation of the organic fraction of municipal solid waste with recirculation of process water
Project: Research

Mathematical Model for dynamic simulation of the anaerobic digestion in UASB reactors treating wastewater with seasonal variations
Project: Research

Modelling of the anaerobic decomposition of xenobiotic micropollutants common in wastewater
Project: Research

Modeling of the anaerobic process
Project: Research

On-Line VFA measurement in biogas reactors.
Project: Research

Mathematical model for dynamic simulation of co-digestion of manure and industrial waste
Project: Research

Method for enhancement of gas yield from organic matter in biogas plants
Project: Research

Activities:

Bioelectrochemical systems serve anaerobic digestion process for process monitoring and biogas upgrading
Activity: Talks and presentations › Conference presentations