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

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

Anaerobic co-digestion of macroalgal 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
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

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

Deciphering the microbial ecology in bio- gas reactors for optimizing the anaerobic digestion process
Research output: Research › Ph.D. thesis – 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 microalgae production coupled with wastewater treatment
Research output: Research - peer-review › Journal article – 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 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

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

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

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

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

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

Algal Biomass for Bioenergy and Bioproducts Production in Biorefinery Concepts
Research output: Research › Ph.D. thesis – 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 H₂S 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

Bioelectrochemical systems serve anaerobic digestion process for process monitoring and biogas upgrading
Research output: Research › Ph.D. thesis – 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 kluveri from ethanol and acetate as carbon sources
Research output: Research - peer-review › Journal article – Annual report year: 2017

Biological systems for simultaneous methanation of CO₂ and H₂ 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-Fe₃O₄ catalyzed UV-Fenton in degradation of phloroglucinol under neutral and alkaline conditions: Role of complexation of Fe³⁺ with hydroxyl 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

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

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

Enhancing biogas production from recalcitrant lignocellulosic residue
Research output: Research › Ph.D. thesis – 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

Hydrogen assisted biological biogas upgrading
Research output: Research › Ph.D. thesis – 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

Microalgae biorefinery symbiosis: screening, production, and process analytical technology
Research output: Research › Ph.D. thesis – 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 electro-synthesis 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

Bioremediation capacity, nutritional value and biorefining of macroalga Saccharina latissima

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

Cultivation of microalgae in industrial wastewaters

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 homoacetogenosis
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 - peer-review › Journal article – Annual report year: 2016

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

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

Valorization of macroalgae 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 $H_2O_2$ 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 - peer-review › Conference abstract for conference – Annual report year: 2015

Ammonia effect on hydrogenotrophic methanogens and syntrophic acetate oxidizing bacteria
Research output: Research - peer-review › 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

Salinity-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 CO_{2} 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 H$_2$O$_2$ interference on COD measurement in Fenton system by Na$_2$SO$_3$ reduction and O$_2$ 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 H$_2$: 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 prothotocoides 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

Optimization of bioethanol production from carbohydrate rich wastes by extreme thermophilic microorganisms
Research output: Research › Ph.D. thesis – Annual report year: 2013

Performance and microbial community analysis of the anaerobic reactor with coke oven gas biomethanation and in situ biogas upgrading
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

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

Energy recovery from waste streams with microbial fuel cell (MFC)-based technologies
Research output: Research › Ph.D. thesis – 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

Mikroorganismen 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 - peer-review › 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

Biogas production from food-processing industrial wastes by anaerobic digestion
Research output: Research › Ph.D. thesis – Annual report year: 2010

Biohydrogen production from sugar rich substrates using the dark fermentation process
Research output: Research › Ph.D. thesis –Annual report year: 2010

Improved anaerobic digestion of energy crops and agricultural residues
Research output: Research › Ph.D. thesis – Annual report year: 2010
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.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

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

Bio-hydrogen production by dark fermentation from organic wastes and residues
Research output: Research › Ph.D. thesis – Annual report year: 2008
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°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

Bioenergy production: 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 - peer-review › 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

Electricity production from xylose using a mediator-less microbial fuel cell
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 (70°C)
Research output: Research - peer-review › Journal article – Annual report year: 2008
Enrichment and adaptation of extreme-thermophilic (70°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 anaerobic 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 (70°C) 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

Online monitoring and control of the biogas process
Research output: Research › Ph.D. thesis – Annual report year: 2006
Acetate oxidation is the dominant methanogenic pathway from acetate in the absence of Methanosaetaecae
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 hyper-thermophilic 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

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 - peer-review › 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 - peer-review › Book chapter – Annual report year: 1998
Projects:

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 efficient 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
Fuldskala 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

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

Microbial physiology and ecology.

MFC-Risø. Microbial fuel cell - used in direct conversion of lignocellulosic waste to energy.

PSO-VFA. Anwendung af online fedtsyresensor for at kontrollere og optimere anaerob processen for lav omkostnings biogas fra gyllen.

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

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

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

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

Hydrogen from biomass. START-programme.

Biogas Forum Øresund. (INTERREG IIIA Øresundsregionen)

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


Bio-hydrogen production by anaerobic fermentation of waste

Innovative reactor configurations for biogas production

Use of membranes for extraction of H2 produced by fermentation

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

Modelling 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