5 år og fuld fart frem "BIOPRO World Talent Campus byder endnu en gruppe talenter fra hele verden velkommen til Danmark."
Publication: Communication › Journal article – Annual report year: 2018

A fast and simple method to estimate relative, hyphal tensile-strength of filamentous fungi used to assess the effect of autophagy
Publication: Research - peer-review › Journal article – Annual report year: 2018

Analysis of temperature glide matching of heat pumps with zeotropic working fluid mixtures for different temperature glides
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Publication: Research - peer-review › Journal article – Annual report year: 2018

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Chapter 3 – VPPD-Lab: The Chemical Product Simulator

Chapter 6 – Computer-Aided Molecular Design and Property Prediction

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Gernaey, K., Bolic, A. & Svanholm, B. 2012 In: Chimica Oggi. 30, 3, p. 38-43
Publication: Research - peer-review › Journal article – Annual report year: 2012

Phase equilibrium modeling of gas hydrate systems for CO2 capture
Publication: Research - peer-review › Journal article – Annual report year: 2012

pH control structure design for a periodically operated membrane separation process
Publication: Research - peer-review › Journal article – Annual report year: 2012

Physiological heterogeneities in microbial populations and implications for physical stress tolerance
Publication: Research - peer-review › Journal article – Annual report year: 2012

Process Design and Evaluation for Chemicals Based on Renewable Resources
Fu, W., Woodley, J., Gani, R. & Riisager, A. 2012 Technical University of Denmark, Department of Chemical Engineering. 327 p.
Publication: Research › Ph.D. thesis – Annual report year: 2012

Process engineering for biocatalytic reactions and biotransformations
Woodley, J. 2012
Publication: Research › Conference abstract for conference – Annual report year: 2012
Process technology for multi-enzymatic reaction systems  
Publication: Research - peer-review › Journal article – Annual report year: 2012

Production of Dialkly Carbonates Via Reactive-Extractive and Pressure-Swing Distillations Using Unifac-CI VLE Model Predictions  
Dada, E. A., Mustaffa, A. A. & Gani, R. 2012  
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Production of ethanol from excess ethylene  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Property Modelling and Databases in Product-Process Design  
Gani, R. & Sansonetti, S. 2012  
Publication: Research › Conference abstract for conference – Annual report year: 2012

Property Prediction for Emulsion based Chemical Product Design  
Mattei, M., Kontogeorgis, G. & Gani, R. 2012  
Publication: Research › Conference abstract for conference – Annual report year: 2012

Property Prediction for Emulsion based Chemical Product Design  
Mattei, M., Kontogeorgis, G. & Gani, R. 2012  
Publication: Research › Poster – Annual report year: 2012

Protein Dynamics in Organic Media at Varying Water Activity Studied by Molecular Dynamics Simulation  
Publication: Research - peer-review › Journal article – Annual report year: 2012

PSE opportunities in biocatalytic process design and development  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Quantifying uncertainties of nucleation and crystal growth models on PAT system performance for crystallization processes  
Publication: Research › Conference abstract for conference – Annual report year: 2012

Reaction and Process Engineering  
Publication: Research - peer-review › Book chapter – Annual report year: 2012

Recent trends in modelling and simulation of biological nutrient removal systems  
Publication: Research - peer-review › Poster – Annual report year: 2012

Recent trends in modelling and simulation of nutrient removal systems  
Publication: Research - peer-review › Book chapter – Annual report year: 2012
Reduction of a Mechanistic Drying Model of Pharmaceutical Granules for Inclusion in a Population Balance Model with Continuous Growth Term
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Projects:

Advanced modeling, simulation and tools integration for in-silico process design and optimization
Shibabaw Molla, G.
01/11/2016 → …
Project

Advancing Modelling for Process-Product Innovation, Optimization, Monitoring and Control in Life Science Industries
01/11/2015 → 31/10/2019
Project

Engineered yeast strains for the production of bulk chemicals from algae biomass
Förster, J., Porcayo Loza, J. & Gernaey, K. V.
15/10/2015 → 14/10/2018
Project

Advanced thermodynamic cycles utilising low-temperature heat sources
01/03/2014 → 28/02/2019
Project

Development of 2nd Generation Biorefineries Production of Dicarboxylic Acids and Bio-based Polymers Derived Thereof
Förster, J., Borodina, I., Stovicek, V., Ögmundarson, Ó., Rasmussen, B. K., Lis, A. V. & Lohmann, R.
01/10/2013 → 30/09/2017
Project

Novel greener and lean processes using integrated microfactories
Krühne, U., Bodla, V. K. & Gernaey, K. V.
01/03/2011 → 28/02/2014
Project

Activities:

6th International Conference on Population Balance Modeling
Mansouri, S. S. (Organizer), Gernaey, K. V. (Organizer)
7 May 2018 → 9 May 2018
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Model-based optimization of a full-scale industrial anaerobic reactor producing biogas
Feldman, H. (Speaker), Flores Alsina, X. (Other), Ramin, P. (Other), Kasper Kjellberg (Other), Ulf Jeppsson (Other), Gernaey, K. V. (Other)
10 Dec 2017 → 13 Dec 2017
Activity: Talks and presentations › Conference presentations

Real-time monitoring of a fermentation process: linking yeast morphology to insulin production by image analysis
Pontius, K. (Guest lecturer)
1 Nov 2017
CFD application as a tool for designing industrial fermenters
Pereira Rosinha Grundtvig, I. (Speaker), Gernaey, K. V. (Other)
29 Oct 2017 → 1 Nov 2017

Dynamics of physiological adaptation of Saccharomyces cerevisiae to biomass hydrolysates: a single cell analysis approach.
Lopez, P. C. (Other), Chuen Tao Peng (Other), Nils Arneborg (Other), Eliasson Lantz, A. (Other), Gernaey, K. V. (Other)
29 Oct 2017 → 2 Nov 2017

Strategy for characterizing microbial physiology across scales in fermentation processes
Nadal Rey, G. (Other), Sjef Cornelissen (Other), Eliasson Lantz, A. (Other), Gernaey, K. V. (Other)
29 Oct 2017

Modelling Illicit Drug Fate in Sewers for Wastewater-Based Epidemiology
Ramin, P. (Speaker), Mikkelsen, P. S. (Guest lecturer), Płósz, B. G. (Guest lecturer)
26 Oct 2017 → 27 Oct 2017

Calibration and Validation of an Anaerobic Digestion Model for Process Optimization of an Industrial Granular Sludge Reactor
Feldman, H. (Speaker), Flores Alsina, X. (Other), Ramin, P. (Other), Kasper Kjellberg (Other), Ulf Jeppsson (Guest lecturer), Batstone, D. J. (Guest lecturer), Gernaey, K. V. (Guest lecturer)
17 Oct 2017 → 20 Oct 2017

Operational monitoring of phosphate and ammonium for an industrial fermentation process using infrared (IR) and near-infrared (NIR) spectroscopy
Pontius, K. (Speaker)
5 Oct 2017

Design of a gas-inducing impeller using Computational Fluid Dynamics
Pereira Rosinha Grundtvig, I. (Guest lecturer), Tim Hybschmann (Other), Gernaey, K. V. (Other), Tore C. Svendsen (Other), Krühne, U. (Other)
1 Oct 2017 → 5 Oct 2017

Topology optimization as a tool for designing microbioreactors
Pereira Rosinha Grundtvig, I. (Speaker), Daugaard, A. E. (Other), Woodley, J. (Other), Krühne, U. (Other)
1 Oct 2017 → 5 Oct 2017

Feasibility test of a complete autotrophic nitrogen removal process treating the effluent of an industrial anaerobic digester
Feldman, H. (Other), Flores Alsina, X. (Other), Kasper Kjellberg (Other), Blum, J. (Other), Valverde Pérez, B. (Other), Sin, G. (Other), Smets, B. F. (Other), Gernaey, K. V. (Other)
9 May 2017 → 12 May 2017

Modelling Methane, Sulphide and Multiple Mineral Precipitation in a Full-Scale Industrial Granular Anaerobic Digester
Feldman, H. (Other), Flores Alsina, X. (Other), Kasper Kjellberg (Other), Sin, G. (Other), Gernaey, K. V. (Other)
9 May 2017 → 12 May 2017
Safeprops: A Software for Fast and Reliable Estimation of Safety and Environmental Properties for Organic Compounds
Jones, M. N. (Lecturer)
16 Nov 2016
Activity: Talks and presentations › Conference presentations

In-Silico Tailoring Properties of Polylactide
Zubov, A. (Speaker), Sin, G. (Other)
13 Nov 2016 → 18 Nov 2016
Activity: Talks and presentations › Conference presentations

EHEDG World Congress on Hygienic Engineering & Design 2016
Yang, J. (Participant)
2 Nov 2016 → 3 Nov 2016
Activity: Attending an event › Participating in or organising a conference

Model Based Optimization of an Industrial Wastewater Treatment Plant Combining a Full-scale Granular Sludge Reactor and Autotrophic Nitrogen Removal
Feldman, H. (Other), Neda Faraghi Parapari (Other), Sille Bendix Larsen (Other), Kasper Kjellberg (Other), Flores Alsina, X. (Other), Sin, G. (Other), Ulf Jeppsson (Other), Gernaey, K. V. (Other)
Activity: Talks and presentations › Conference presentations

A Biocatalytic Microreactor – Dynamic CFD Modelling and Experimental Analysis
Krühne, U. (Lecturer)
27 Sep 2016
Activity: Talks and presentations › Conference presentations

20th Nordic Process Control Workshop
André Fernandes Caroço, R. (Participant)
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

20th Nordic Process Control Workshop
Boiocchi, R. (Speaker)
Activity: Talks and presentations › Conference presentations

Ecotechnologies for wastewater treatment 2016
Boiocchi, R. (Speaker)
27 Jul 2016 → 30 Jul 2016
Activity: Talks and presentations › Conference presentations

11th IFAC Symposium on Dynamics and Control of Process Systems Including Biosystems DYCOPS-CAB 2016
Boiocchi, R. (Speaker)
6 Jun 2016 → 8 Jun 2016
Activity: Talks and presentations › Conference presentations

Model based monitoring of bioprocessing plants - a solid-liquid extraction example
André Fernandes Caroço, R. (Lecturer)
21 Apr 2016
Activity: Talks and presentations › Conference presentations

13th Multiphase Flow Conference & Short Course
Yang, J. (Participant)
24 Nov 2015 → 26 Nov 2015
A New Optimization Model for Computer-Aided Molecular Design Problems  
Cignitti, S. (Speaker)  
9 Nov 2015  
Activity: Talks and presentations › Conference presentations

Systematic Computer-Aided Framework for Sustainable Chemical Product Design  
Cignitti, S. (Speaker)  
9 Nov 2015  
Activity: Talks and presentations › Conference presentations

2015 AIChE Annual Meeting  
Frauzem, R. (Participant)  
8 Nov 2015 → 13 Nov 2015  
Activity: Attending an event › Participating in or organising a conference

10th European Congress of Chemical Engineering  
Frauzem, R. (Participant)  
28 Sep 2015 → 29 Sep 2015  
Activity: Attending an event › Participating in or organising a conference

A Systematic Computer-Aided Framework for Integrated Design and Control of Chemical Processes  
Mansouri, S. S. (Keynote speaker)  
28 Sep 2015  
Activity: Talks and presentations › Conference presentations

Cignitti, S. (Speaker)  
28 Sep 2015  
Activity: Talks and presentations › Conference presentations

10th European Congress of Chemical Engineering  
Handani, Z. B. (Participant)  
27 Sep 2015 → 1 Oct 2015  
Activity: Attending an event › Participating in or organising a conference

4th Summer School of the IMPRS Magdeburg on Process Systems Engineering  
Cignitti, S. (Participant)  
31 Aug 2015 → 4 Sep 2015  
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Dynamic Modeling and Optimization of Large Scale Lignocellulosic Biorefineries  
Prunescu, R. M. (Invited speaker)  
18 Aug 2015  
Activity: Talks and presentations › Conference presentations

9th IWA Symposium on Systems Analysis and Integrated Assessment (Watermatex 2015)  
Boiocchi, R. (Speaker)  
14 Jun 2015 → 17 Jun 2015  
Activity: Talks and presentations › Conference presentations

12th PSE and 25th ESCAPE Joint Conference  
Cignitti, S. (Organizer)  
31 May 2015 → 4 Jun 2015
12th PSE and 25th ESCAPE Joint Conference
Boiocchi, R. (Participant)
31 May 2015 → 4 Jun 2015
Activity: Attending an event › Participating in or organising a conference

25th European Symposium on Computer Aided Process Engineering
Frauzem, R. (Organizer)
31 May 2015 → 4 Jun 2015
Activity: Attending an event › Participating in or organising a conference

Multivariate analysis of industrial scale fermentation data
Mears, L. (Speaker)
31 May 2015 → 4 Jun 2015
Activity: Talks and presentations › Conference presentations

4th International Congress on Sustainability Science & Engineering
Frauzem, R. (Speaker)
28 May 2015
Activity: Talks and presentations › Conference presentations

Multivariate analysis of industrial scale fermentation data
Mears, L. (Speaker)
31 May 2015 → 4 Jun 2015
Activity: Talks and presentations › Conference presentations

4th International Congress on Sustainability Science & Engineering
Handani, Z. B. (Participant)
Activity: Attending an event › Participating in or organising a conference

Application of Multivariate Analysis Tools to Industrial Scale Fermentation Data
Mears, L. (Speaker)
22 Apr 2015 → 24 Apr 2015
Activity: Talks and presentations › Conference presentations

19th Nordic Process Control Workshop
Boiocchi, R. (Speaker)
13 Jan 2015 → 16 Jan 2015
Activity: Talks and presentations › Conference presentations

2014 AIChE Annual Meeting: American Institute of Chemical Engineers
Frauzem, R. (Speaker)
19 Nov 2014
Activity: Talks and presentations › Conference presentations

Dynamic Simulation, Sensitivity and Uncertainty Analysis of a Demonstration Scale Lignocellulosic Enzymatic Hydrolysis Process
Prunescu, R. M. (Speaker)
16 Nov 2014 → 21 Nov 2014
Activity: Talks and presentations › Conference presentations

Microfluidics in Chemical and Biochemical Engineering Applications
Krühne, U. (Lecturer)
23 Sep 2014
Activity: Talks and presentations › Conference presentations

An integrated approach for synthesis and design of process and water/wastewater networks
Handani, Z. B. (Speaker)
23 Aug 2014 → 27 Aug 2014
Activity: Talks and presentations › Conference presentations
Computer-aided modeling framework: a generic template as a modeling tool
Gani, R. (Speaker)
20 Apr 2013 → 25 Apr 2013
Activity: Talks and presentations › Conference presentations

Design of a Tank Cleaning Blend through a Systematic Emulsified Product Design Methodology
Kontogeorgis, G. (Lecturer)
20 Apr 2013 → 25 Apr 2013
Activity: Talks and presentations › Conference presentations

Design of a Tank Cleaning Blend through a Systematic Emulsified Product Design Methodology
Mattei, M. (Lecturer)
20 Apr 2013 → 25 Apr 2013
Activity: Talks and presentations › Conference presentations

Efficient Information and Data Management in Synthesis and Design of Processing Networks
Sin, G. (Lecturer)
20 Apr 2013 → 25 Apr 2013
Activity: Talks and presentations › Conference presentations

Modelling of physical and thermodynamic properties in systems containing edible oils and biodiesel
Cunico, L. (Lecturer)
20 Apr 2013 → 25 Apr 2013
Activity: Talks and presentations › Conference presentations

Modelling of physical and thermodynamic properties in systems containing edible oils and biodiesel
Ceriani, R. (Lecturer)
20 Apr 2013 → 25 Apr 2013
Activity: Talks and presentations › Conference presentations

Recent advances in CAPE and PSE applicable to the Pharmaceuticals Industry
Gani, R. (Lecturer)
19 Dec 2012
Activity: Talks and presentations › Conference presentations

Computational Solvent Design for Integrated Chemical Processes
Gani, R. (Lecturer)
15 Nov 2012 → 16 Nov 2012
Activity: Talks and presentations › Conference presentations
Pesticide uptake modeling
Gani, R. (Lecturer)
7 Nov 2012
Activity: Talks and presentations › Conference presentations

Research at CAPEC
Gani, R. (Lecturer)
27 Sep 2012
Activity: Talks and presentations › Conference presentations

International Conference on Operations Research
Hansen, K. R. N. (Participant)
2 Sep 2012
Activity: Attending an event › Participating in or organising a conference

Hukkerikar, A. S. (Speaker)
15 Jul 2012 → 19 Jul 2012
Activity: Talks and presentations › Conference presentations

25th European Conference on Operations Research
Hansen, K. R. N. (Participant)
10 Jul 2012
Activity: Attending an event › Participating in or organising a conference

Novel applications of microbial transglutaminase as a biocatalyst for benign amide synthesis
Deslauriers, M. G. (Speaker)
18 May 2012
Activity: Talks and presentations › Conference presentations

Enzyme engineering for medical and biocatalytic applications
Deslauriers, M. G. (Speaker)
12 May 2012
Activity: Talks and presentations › Conference presentations

Biorefinery Öresund Conference 'Biorefining from raw material to high value products'
Cheali, P. (Speaker), Gernaey, K. V. (Speaker), Sin, G. (Speaker)
1 May 2012 → 30 Apr 2015
Activity: Talks and presentations › Conference presentations

Cost Estimation for Early-Stage Synthesis and Design of Biorefinery Networks
Cheali, P. (Other)
1 May 2012 → 30 Apr 2014
Activity: Talks and presentations › Conference presentations

Synthesis and design of hybrid biorefinery systems – a structural optimisation approach and uncertainty analysis
Cheali, P. (Speaker)
1 May 2012 → 30 Apr 2015
Activity: Talks and presentations › Conference presentations

Uncertainty analysis in raw material and utility cost of biorefinery synthesis and design
Cheali, P. (Other)
1 May 2012 → 30 Apr 2015
Activity: Talks and presentations › Conference presentations
Process engineering tools to guide implementation and scale-up of transaminase cascades
Tufvesson, P. (Speaker)  
13 Apr 2012  
Activity: Talks and presentations › Conference presentations

Microbial transglutaminase; exploration of substrate specificity, and biocatalytic applications
Deslauriers, M. G. (Speaker)  
18 Nov 2011  
Activity: Talks and presentations › Conference presentations

Building and sustaining an Industrial Consortium – The experience of DTU-CAPEC
Gani, R. (Speaker)  
22 Apr 2011  
Activity: Talks and presentations › Conference presentations

Managing the Complexity in Product and Process Engineering
Gani, R. (Speaker)  
17 Mar 2011  
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities

CAPEC Overview and Status - 2011
Gani, R. (Speaker)  
10 Feb 2011  
Activity: Talks and presentations › Conference presentations

CAPEC Overview and Status - 2011
Gani, R. (Invited speaker)  
27 Jan 2011  
Activity: Talks and presentations › Talks and presentations in private or public companies and organisations

Prizes:

Best Oral Presentation Award
Seyed Soheil Mansouri (Recipient), 7 Jun 2015
Prize: Prizes, scholarships, distinctions

Best Presentation
Seyed Soheil Mansouri (Recipient), 10 Nov 2015
Prize: Prizes, scholarships, distinctions