

# KT Consortium Meeting 2017

6-8 June 2017

## Beach Hotel Marienlyst, Elsinore, Denmark

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### Preliminary Technical Program

<b>Tuesday 6 June 2017</b>	
<b>DTU Kemiteknik (KT) / DTU Chemical and Biochemical Engineering, Lyngby</b>	
Morning	For those arriving early, it is possible to visit the Department of Chemical and Biochemical Engineering (KT), DTU, in Lyngby
11:00-14:00	ICAS Workshop, Professor Rafiqul Gani and Post Doc Alay Aray (including lunch) in room 003, bld. 229
12:00-13:00	Lunch for all AM17 participants
13:00-14:00	PILOT PLANT tour, bld. 228, by Lars Kiørboe, Head of PILOT PLANT, and Associate Professor Ioannis V. Skiadas
14:00	Departure by bus from bld. 229 to Marienlyst
14:30	Arrival at Marienlyst and check-in to rooms
15:30	Transportation from Marienlyst to Kronborg
16:00-17:00	Sightseeing at Kronborg: "In Hamlet's Footsteps"
18:30-22:00	Get-together-reception at Marienlyst
20:30-21:30	Advisory Board Meeting, Marienlyst

<b>Wednesday 7 June 2017 (Technical Program 8:30-16:30)</b>	
<b>Beach Hotel Marienlyst, Elsinore</b>	
08:30	Welcome & Introduction - <i>Professor Kim Dam-Johansen, Head of Chemical and Biochemical Engineering (KT), DTU</i>
08:50	KT Consortium - Current Status - <i>Professor Rafiqul Gani</i>
	<b>Presentation of main research areas by selected PhD students</b>
09:15	<i>(PhD 1) Olivia Perederic</i> - Thermodynamic property modelling for Lipids Based Process and Product Design
09:35	<i>(PhD 2) Daniela Damaceno</i> – Improvement of predictive tools of vapor-liquid equilibrium based on group contribution methods applied to lipid
09:55	<i>(PhD 3) Andre Vinhal</i> - Simultaneous representation of critical point and phase equilibria with advanced thermodynamic models
10:15	<i>Break</i>
10:45	<i>(PhD 4) Spardha V. Jhamb</i> – Property model based chemical substitution & formulation design
11:05	<i>(PhD 5) Xinyan Liu</i> – Energy Efficient Hybrid Gas Separation with Ionic Liquid
11:25	<i>(PhD 6) Rebecca Frauzem</i> – Sustainable CO <sub>2</sub> capture & conversion technologies
12:00	<i>Lunch</i>
13:00	<b>Poster Session &amp; Meet the Faculty</b> <i>Projects on property prediction; hybrid separation; superstructure based optimization; process intensification, ionic liquids for CO<sub>2</sub> capture, electrolytes, asphaltenes and other complex mixtures with CPA and interfacial properties (PhD; MSc; and visiting students)</i>
15:00	<i>(PhD 7) Maria-Ona Bertran</i> – Modelling, Synthesis and Analysis of Biorefinery Networks
15:20	<i>(PhD 8) Alessandro Rosengart</i> – Strategy for adipic acid production
15:40	<i>(PhD 9) Mauro Torli</i> - Thermodynamics, Design, Simulation and Benchmarking of Biofuel Processes
16:00	<i>(PhD 10) Nipun Garg</i> – Systematic Chemical and Sustainable Process Synthesis, Design and Intensification
	<i>Free time</i>
18:30	<i>Annual Meeting Dinner</i> <i>Oral and Poster Awards</i>

<b>Thursday 8 June 2017 (Technical Program 8:30-14:30)</b>	
<b>Beach Hotel Marienlyst, Elsinore</b>	
08:30	Invited lecture 1 - <i>Dr. Maxime Durot, TOTAL MS, France</i> – New approaches for bio-based product design at TOTAL
09:00	Invited lecture 2 - from member company
09:30	Invited lecture 3 - <i>Dr. Eirini Siougkrou, Dept. Chemical Engineering, Technical University of Athens, Greece</i> - Systematic methods for solvent design; Towards better reactive processes
10:00	<i>Break</i>
	<b>Presentation of main research areas by KT Consortium Faculty Members &amp; Post Docs</b>
10:30	<i>(1) Post Doc Alay Arya</i> – Software News & Status
11:00	<i>(2) Assistant Professor Xiaodong Liang</i> - Fluid phase equilibria and interfacial tension from advanced equations of state
11:30	<i>(3) Post Doc Teng Zhou</i> – Systematic methods for reaction solvent design
12:00	<i>Lunch</i>
13:00	<i>(4) Professor John Woodley</i> - Development of Industrial Bioprocesses
13:30	<i>(5) Professor Georgios Kontogeorgis</i> - Thermodynamic models for process and product design. Status and Future trends
14:00	Open discussion with member companies (Professors Rafiqul Gani, Georgios Kontogeorgis, John M. Woodley and Assistant Professor Xiaodong Liang)
14:30	<i>End of meeting – bus transportation to DTU, bld. 229 and/or airport</i>
15:00	<i>Arrival at DTU, bld. 229</i>
15:45-16:45	PILOT PLANT tour, bld. 228, by Lars Kiørboe, Head of PILOT PLANT, and Associate Professor Ioannis V. Skiadas

## KT Consortium - Poster Presentations 2017

No.	Personnel	Poster Title
	<b>MSc Students:</b>	
P1	Anders Jaksland	Development of novel processing networks for biorefineries
P2	Evangelia Koumaditi	Intensified reaction-separation schemes
P3	Jacob Møller Jensen	Design of a CO2 Utilizing and neutral process
P4	Maria do Carmo	Food waste upgrading by an integrated biorefinery process
P5	Tereza Kolaiti	Process design and analysis for the synthesis of glycerol to 3-hydroxypropionic acid and 1,3-propanediol
	<b>PhD Students:</b>	
P6	Edgar Vergara	Inhomogeneous fluid behavior: density function theory approaches
P7	Li Sun	Modeling CO2 semi-clathrate hydrate related systems: literature review and database
P8	Anders Schlaikjer	Development of CPA for electrolyte mixtures
P9	Mauro Torli	The SYNFERON project
P10	Arne B. Gladis	Upscaling of enzyme-enhanced carbon capture process
P11	Susana Raquel Melo de Almeida	"...."
	<b>Researchers:</b>	
P12	Alay Arya	Recent application of CPA for flow assurance (asphaltenes)