

13th Minisymposium Chemical and Process Engineering

Program

Wednesday, 29 March 2017

Registration and coffee

09.00-10.00

Come and meet your colleagues in room 4A-020, ground floor

Welcome

10.00-10.15

Andreas Altmann (Rector MCI)

Michael Kraxner (Head of Research, Development & Technology Transfer)

Marco Rupprich (Head of Department Environmental, Process and Energy Engineering)

Energy

10.15-10.35

Thomas Laminger, TU Wien: "Materialverbrauch eines Schüttschichtfilters zur Abscheidung von Feinstaub aus Kleinfeuerungsanlagen"

10.35-10.55

Simone Spitzer, TU Wien: "Mobilization of biogas upgrading plants"

10.55-11.15

Markus Bösenhofer, TU Wien: "Difficulties in the characterization of gas phase combustion regimes"

11.15-11.35

Benjamin Hupfauf, MCI: "Hydrothermal carbonization of agricultural vegetable residuals and determination of the exothermic reaction heats"

Lunch

11.35-12.45

Enjoy your lunch in room 4A-020

Gas-Particle-Systems

12.45-13.05

Florian Benedikt, TU Wien: "Enhanced Dual Fluidized Bed Gasification Using Calcium Oxide as Bed Material"

13.05-13.25

Josef Fuchs, TU Wien: "Ash Related Limitations of Dual Fluidized Bed Steam Gasification"

13.25-13.45

Verena Wolf-Zöllner, MU Leoben: "Performance comparison of different pressure drop correlations for packed columns"

13.45-14.05

Katja Hüttenbrenner, MU Leoben: "Mitigation of dust explosions by porous inert materials"

Break

14.05-14.35

Have a coffee in room 4A-020

Separation

14.35-14.55

Robert Macher-Ambrosch, TU Graz: "Turbidity Control"

14.55-15.15

Jörg Padberg, TU München: "Oil and grease barrier properties of microfibrillated cellulose coated paper"

15.15-15.35

Philipp Biegger, MU Leoben & Florian Kirchbacher, TU Wien: "Combination of CO₂-methanation and membrane gas treatment in an innovative Power to Gas concept"

15.35-15.55

Muhammad Ali Samee, TU Wien: "Separation Performance of Nanofiltration Process for Binary, Ternary and Quarternary Aqueous Ionic Systems- An Experimental Study"

Break

15.55-16.15

Have a coffee in room 4A-020

Poster Presentations

16.15-17.00

Poster Presentations A – "Energy and Environment" – *room 4A-024*

Poster Presentations B – "Separation, Simulation and Pharma" – *room 4A-027*

Poster Discussion

17.00-18.00

Vote for your favorite poster

Glockengießerei Grassmayr

18.30-20.00

Enjoy the tour at Glockengießerei Grassmayr, Leopoldstraße 53, 6020 Innsbruck

Dinner

20.00

Enjoy your dinner at Bierstindl, Klostersgasse 6, 6020 Innsbruck

Poster Presentations A – “Energy and Environment”

16.15-16.18

Werner Pollhammer, K1-MET GmbH: “CFD modeling of a walking beam furnace using flamelet methods”

16.18-16.21

Klara Treusch, TU Graz: “Continuous Single-Step Hydrodeoxygenation of Liquid Phase Pyrolysis Oil”

16.21-16.24

Michael Lammer, TU Graz: “Methodology of thermal ramp experiments on cylindrical Li-ion cells”

16.24-16.27

Florian Pöllabauer, TU Graz: “Flowsheet Analysis using Graph Theory”

16.27-16.30

Jan Lubensky, MU Leoben: “Versuchsbetrieb einer mobile Pilotanlage zum Ammoniumrecycling aus Trübwässern”

16.30-16.33

Christoph Ponak, MU Leoben: “Carbo-thermal processing of sewage sludge ashes and steelmaking slag”

16.33-16.36

Birgit Pichler, TU Graz: “Bifunctional air electrodes for rechargeable zinc/air flow batteries”

16.36-16.39

Ilena Grimmer, TU Graz: “Influences on the long-term performance of cathodes in alkaline fuel cells”

16.39-16.42

Gerald Schweiger, AEE Institut für Nachhaltige Technologien: “Colocation-based dynamic optimization of district heating systems”

16.42-16.45

Andreas Leitner, BOKU: “Decentralized Bi-directional integration of Heat Grid customers: Implementation concepts in the heating network ‘Großschönau’”

16.45-16.48

Manuel Kreimer, RCPE GmbH: “Small-scale Continuous Drying of Powders via Extrusion avoiding Agglomeration or Attrition of the Final Product”

16.48-16.51

Daniel Koch, TU Wien: “Ökobilanzen in der Prozessentwicklung”

16.51-16.54

Thomas Dornauer, MCI: “Turbulente Verbrennung zur Wirkungsgradsteigerung in Gasmotoren”

16.54-16.57

Sabrina Dumfort, MCI: “Investigating the Microbial Wood Degradation Process by Respirometric Tests”

Poster Presentations B – “Separation, Simulation and Pharma”

16.15-16.18

Nélio Drumond, TU Graz: “In vitro methods based on mechanical forces to assess the mucoadhesive potential of water-soluble polymers: Modified balance/surface tensiometer”

16.18-16.21

Andreas Toth, TU Graz: “Esterification in Emulsified Biphasic Systems”

16.21-16.24

Nuttakul Mungma, TU Graz: “Isolation of carboxylic acids and hydroxycarboxylic acids by liquid-liquid extraction”

16.24-16.27

Federico Municchi, TU Graz: “Algorithms and Closures for Modeling Thermal Transport in Dense Suspensions: Radiation and Wall Effects”

16.27-16.30

Anda Lucia, MU Leoben: “Desorption of Carbon Dioxide from Falling Water Droplets”

16.30-16.33

Maryam Askarishahi, RCPE GmbH: “A Coarse-Grid CFD-DEM Model for Multi-physics Simulations of Dense Gas-Particle Flows”

16.33-16.36

Mohammad-sadegh Salehi, TU Graz: “CFD-DEM Simulation of Three-phase Bubble Column Hydrodynamics: Effect of Fluid Grid Size”

16.36-16.39

Dominik Kowald, MU Leoben: “Identification of dissolved substances in condensed process steam during the pyrolysis of post-consumer plastics”

16.39-16.42

Elisabeth Rammerstorfer, TU Graz: “Kinetic Modeling of Fouling in Crude Oil Heat Transfer Equipment”

16.42-16.45

Thomas Märzinger, BOKU: “Pump reliability as a function of the BEP”

16.45-16.48

Mohammad Rezaei, JKU: “Impact of gas bubbling on wetting control in a submerged membrane distillation”

16.48-16.51

Martin Pillei, MCI: “Investigation on dominant flow structures associated with the separation mechanism of Uniflow Cyclones with Snapshot POD”

16.51-16.54

Johannes Poms, RCPE GmbH: “Optical Coherence Tomography of Multilayer-Tablets to examine Critical Quality Attributes”

16.54-16.57

Ervin Saracevic, TU Wien: “Dynamic simulation of a biogas plant providing control energy reserves”

16.57-17.00

Jan Back, MCI: “Thin film composite multi-channel capillary membranes prepared via interfacial polymerization for nanofiltration”

Thursday, 30 March 2017

Lab Tour

08.00-09.30

Join us for a tour through the laboratories at MCI

Welcome and coffee

09.15-09.30

Good morning!

Simulation

09.30-09.50

Stefanie Tomasch, MU Leoben: „Investigating the influence of inert water-laden particles on the combustibility of lycopodium/air mixtures using an Euler-Lagrange method in OpenFOAM”

09.50-10.10

Manuel Berger, MCI: “A mesh convergence study on LB flow simulations of the nasal geometry with horizontal cut”

10.10-10.30

Bahram Haddadi, TU Wien: “Grid Dependency Study in CFD Computation of Flow Structure in a T-Mixer”

Break

10.30-10.45

Have a coffee in room 4A-020

Waste Management

10.45-11.05

Florian Huber, TU Wien: “Life cycle assessment as a decision support tool in process engineering: A case study from the waste management sector”

11.05-11.25

Doris Rixrath, Forschung Burgenland GmbH: “Using reed as energy resource compared to conventional fuels – a comparative LCA”

11.25-11.45

Daniel Schwabl, MU Leoben: “Vergleichende Betrachtung der Trennstufen eines Aufbereitungsprozesses für polyolefinreiche Altkunststofffraktionen”

Handover of Marini and closing session

11.45-12.00

Lunch

12.00-13.00

Enjoy your lunch in room 4A-020

4th Austrian Particle Forum

Program

Thursday, 30 March 2017

Welcome

13.00-13.10

Presentations

13.15-13.35

Jakob Redlinger-Pohn, TU Graz: "Particle Separation Phenomena in Coiled Channels"

13.35-13.55

Mustafa E. Kinaci, JKU: "Modelling of Chemical Reaction in Metallurgical Processes"

13.55-14.15

Wolfgang Ipsmiller, TU Wien: "Optische Partikelanalyse in Polymerfolien"

Discussion and Closing Session

14.15-14.45