Programm

2ND German Doctoral Colloquium Bioenergy

Monday, September 30th, 2019

12:00	Registration	
12:30-12:45	Welcome address	Dr.-Ing. Karl FAU Erlangen-Nürnberg, Prof. Dr.-Ing. Thrän, DBFZ
12:45-13:15	Keynote: "Towards a Sustainable (Bio-)Energy Transition - Ethical Considerations"	Prof. Dr. Potthast Internationales Zentrum für Ethik in den Wissenschaften (IZEW) Eberhard Karls Universität Tübingen
13:15-13:30	Impulse statements by the 5 session leaders (3 minutes each)	
13:30-14:00	*Coffee Break* and poster exhibition	

14:00 - 15:40

Session: "Bioraffineries/biofuels"

20 minutes each + 5 minutes discussion

Chair: Prof. Dr. Kruse, Prof. Dr. Dahmen, Prof. Dr.-Ing. Gaderer

1: Integrierbarkeit von Inkohlungsprozessen in ein Bioraffineriekonzept
Benjamin Schwan

2: Biogastankstelle für die Landwirtschaft - Gegenüberstellende ökonomische Bewertung unterschiedlicher Verfahren für die dezentrale partielle Biogasaufbereitung
Abdessamad Saidi

3: Gas conditioning of bio-oil hydrotreatment off-gases for the efficient hydrogen recirculation: a modelling and experimental approach
Michael Bampaou

4: CLARA- Chemical looping gasification for sustainable production of biofuels
Paul Dieringer

14:00 - 14:50

Session: "Energy crops production and -utalization"

20 minutes each + 5 minutes discussion

Chair: Prof. Dr. Weber-Blaschke, PD Dr. Kurt Möller

1: Research on Ukrainian Energy Crops for Biogas Production- Influence of anaerobic digestion processes on the germination of weed seeds
Ievgeniia Morozova

2: Low Indirect Land Use Change Risk Indicators for Certification- Current Status
Beike Sumfleth

15:40 GET IN TOUCH!

17:00 Journey to Nuremberg City center (ca. 30min)

17:45-19:00 **Guided tour: Historic city centre of Nürnberg**
17:45 City tour - english language
17:45 City tour- german language

Guided tour: Rock-cut beer cellars
17:45 Nuremberg cellar- english language
18:00 Nuremberg cellar- german language

19:00 *Conference dinner (Zum Spiessgesellen)*

Tuesday, October 1th, 2019

08:30-09:00 Keynote: to be announced

9:00 -10:40

Session: "Thermochemical Conversion I"

20 minutes each + 5 minutes discussion

Chair: Prof. Dr.-Ing. Karl, Prof. Dr.-Ing. Quicker, Dr. Weber

1:Verfahren zur Entwicklung von Katalysatoren für die Emissionsminderung an Verbrennungsanlagen
Rene Bindig

2: SOFC single cells fed with wood gas: the influence of tar contaminants on cell performance
Yixing Li

3: Optimisation of process parameter during Hydrothermal Carbonisation of sewage sludge
Wolfgang Waldmüller

4: Entwicklung eines Rostsystems zur Verbrennung von Strohpellets in Kleinfeuerungsanlagen
Lukas Schenke

9:00 -10:40

Session: "System analysis bioenergy"

20 minutes each + 5 minutes discussion

Chair: Prof. Dr.-Ing. Thrän, Dr. Eltrop

1: Biogas Plant Operating Strategies for Demand-Oriented Electricity Generation at the Distribution Grid Level
Katharina Bär

2: Impact of increased use of biomass in transport on the role of bioenergy for electricity and district heating
Sylvio Nagel

3: Bioenergy Technologies Pathways in the German Electricity and Heat Market - a techno-economic Brownfield Optimization
Samah Gouya

4: The representation of biomass-based carbon removal options in German energy and climate scenarios
Alena Hahn

10:40-11:10 *Coffee Break* and poster exhibition

11:10 -12:50

Session: " Thermochemical Conversion II"

20 minutes each + 5 minutes discussion

Chair: Prof. Dr.-Ing. Karl, Prof. Dr.-Ing. Quicker, Dr. Weber

1: Utilization of biogenic residues in a biorefinery concept via entrained flow gasification with coupled gas fermentation for the production of basic chemicals
Philipp Leuter

2: "BioWasteStirling" - Long-term operation experience of a fluidized bed-fire Stirling engine for micro-scale CHP
Tanja Schneider

3:Hydrothermal Carbonisation of Biogenic Waste
Nicklas Stobernack

4:Deep desulphurization of biomass-based gasification syngas
Christian Frilund

11:10-12:50

Session: "Biochemical Conversion"

20 minutes each + 5 minutes discussion

Chair: Prof. Dr. Nelles, Prof. Dr. Bahrs, Dr. Oechsner

1:Optimizing biological CO2-methanation in a trickle-bed reactor: the ORBIT-Project
Martin Thema

2: Trickle-bed reactor for biological methanisation
Tobias Weidlich

3: Biological Methanation Using Synthesis Gas of an Allothermal Wood Gasifier
Thomas Trabold

4: Analyse und Minderung von Methanemissionen an Biogasanlagen
Thorsten Reinelt

12:50-14:00 *Lunchbreak* and poster exhibition

14:00 -14:40

Poster Speed-Presentations

3 minutes each

Biochemical Conversion	*1, The potential role of biochemicals for German climate targets: Assessments based on environmental and economic perspectives* Frazer Musoda
Bioraffineries/ biofuels	2, Synthesis of light hydrocarbons from biogas and electrolytic hydrogen Sebastian Dietrich
Bioraffineries/ biofuels	3, Entwicklung von wasserselektiven Membranen für die Methanisierung von CO2 nach dem Sol-Gel Verfahren Matthias Kurth
Energy crops production and -utalization	4, Influence of anaerobic digestion processes on the germination of weed seeds Lijun Zhou
Energy crops production and -utalization	*5, Food Waste Co-Digestion in Germany and the United States: From Lab to Full-Scale Systems* Benedikt Hülsemann
System analysis bioenergy	*6, Status quo of Solid Biogenic Fuels in the European Union: Overview on Qualities, Standards and Applications* Niels Kirstein
Thermochemical Conversion	*7, Characterisation of carbon-free and carbon-containing ashes from thermochemical conversion of Si-rich agricultural residues* Thomas Schliermann

Thermochemical Conversion	*8, Development and application of novel SCR catalysts for the low-temperature denitrification of exhaust gases from the thermo-chemical conversion of biogenic solid fuels* Mario König
Thermochemical Conversion	*9, Catalyst characterization and integration at small-scale biomass combustion systems* Mirjam Müller
Thermochemical Conversion	*10, Reduction of Nitrogen Contents in Particleboard - Opportunities and Limits of Fuel Pre-treatment Based on Combined Hydrolysis and Torrefaction* Jasmin Boße
Thermochemical Conversion	*1: Systematical study of most relevant parameters on the quality of biogenic silica obtained from thermochemical conversion of rice straw* Hossein Beidaghy Dizaji
other topics	*11, Bioenergy Policy in Germany* *The Regulation of Power and Heat from Biomass* Katrin Beer

14:40 Summary and Conclusions — Dr.-Ing. Karl, FAU Erlangen-Nürnberg