



Tailor-Made Fuels  
from Biomass

**RWTH**AACHEN  
UNIVERSITY

# PROGRAM

## 2. International Conference

of the  
**Cluster of Excellence**  
**Tailor-Made Fuels from Biomass**

June 16<sup>th</sup> - 18<sup>th</sup>, 2014  
Eurogress, Aachen, Germany

with support of

**Green  
Chemistry**



Scan this QR-Code or go to  
<http://bit.ly/1hqpehD> to download  
a digital version of the book of abstracts

## 2. International TMFB Conference June 16<sup>th</sup> – 18<sup>th</sup>, 2014, Aachen, Germany

**Monday 16.06.2014**

08:30		<b>S. Pischinger</b>		Welcome and Introduction		
08:45	<b>Keynote Session</b>	<b>G. Centi</b> <i>University of Messina</i>		Keynote Lecture: The role of biomass in changing scenarios for green & sustainable energy and chemical production: from biorefineries to bio-factories		
09:30		<b>M. Wubbolts</b> <i>Royal DSM</i>		Keynote Lecture: Biobased solutions from DSM for renewable energy and materials		
10:15	Coffee Break					
10:45	<b>Keynote Session</b>	<b>G. Huber</b> <i>University of Wisconsin-Madison</i>		Keynote Lecture: Design of catalysts for hydrodeoxygenation of biomass		
11:30		<b>J. Pérez-Ramírez</b> <i>ETH Zürich</i>		Keynote Lecture: Zeolite catalysts for biomass conversion into fuels and chemicals: hopes and fears		
12:15	Lunch Break					
13:15	<b>Fuel Design</b>	<b>P. Emberger</b> <i>TFZ Straubing</i>		Ignition and combustion characteristics of pure vegetable oils in a constant volume combustion chamber		
13:45		<b>G. Walther</b> <i>RWTH Aachen University</i>		Analysis of the legal boundary conditions to regulate the biofuels market		
14:15		<b>J. Sutter</b> <i>Öko Institut</i>		Environmental assessment as tool in a fuel design process		
14:45		<b>F. Hoppe</b> <i>RWTH Aachen University</i>		Biomass-based ketones as successful example for the Fuel Design Process		
15:15	Coffee Break					
15:45	<b>Combustion Chemistry 1</b>	<b>J. Mendes</b> <i>National Univ. of Ireland</i>	Rate constant calculations of the H-atom abstraction...	<b>Spray and Mixture</b>	<b>J. Palmer</b> <i>RWTH Aachen University</i>	Jet breakup and mixture formation of novel biofuels
16:15		<b>B. Akih-Kumgeh</b> <i>Syracuse University</i>	Reactivity trends in furan and alkylfuran combustion		<b>A. Koder</b> <i>OTH Regensburg</i>	Injection rate characteristics () with straight rapeseed oil and mixt...
16:45		<b>S.M. Sarathy</b> <i>King Abdullah University</i>	Alcohol combustion chemistry		<b>P. Dragomirov</b> <i>University of Magdeburg</i>	Analysis of the atomization characteristics of BTL-fuel
17:15	Coffee Break					
17:30	<b>Poster</b>	Poster Session				
18:00	<p style="text-align: center;">Evening Reception at the Eurogress</p> <p style="text-align: center;"><b>Public Viewing World Cup Soccer Game</b> Germany - Portugal</p>					

Room "Brüsselsaal"

Room "K2"

## 2. International TMFB Conference June 16<sup>th</sup> – 18<sup>th</sup>, 2014, Aachen, Germany

Tuesday 17.06.2014

09:00	<b>Keynote Session</b>	<b>T. Faravelli</b> <i>Politecnico di Milano</i>		Keynote Lecture: Lumping approach applied to biodiesel oxidation kinetics		
09:45		<b>O. Honda</b> <i>Osaka University</i>		Keynote Lecture: Construction of an in vitro synthetic pathway with thermophilic enzymes		
10:30	Coffee Break					
11:00	<b>From Biomass to Biofuels</b>	<b>J. van Groenestijn</b> <i>TNO</i>	Biomass pretreatment by a continuous flow of superheated steam	<b>Combustion Chemistry 2</b>	<b>C. Westbrook</b> <i>Lawrence Livermore National Laboratories</i>	Chemical kinetic reaction mechanisms of large HC and bio-derived fuels
11:30		<b>O. Vozniuk</b> <i>Università di Bologna</i>	The chemical-loop approach in bio-alcohols reforming		<b>S.P. Medvedev</b> <i>Semenov Institute of Chemical Physics</i>	Optical study of hydrogen and biofuels autoignition kernel growth...
12:00		<b>K. Luska</b> <i>RWTH Aachen University</i>	Selective deoxy-genation of Biomass-derived substrates...		<b>L. Cai</b> <i>RWTH Aachen University</i>	Experimental and kinetic investigation of n-octanol
12:30	Lunch Break					
13:30	<b>Keynote Session</b>	<b>A. Faaij</b> <i>Energy Academy Europe</i>		Keynote Lecture: After the storm...; what is now the position of biofuels in a future low carbon and sustainable energy future?		
14:15		<b>W. Cheng</b> <i>Massachusetts Institute of Technology</i>		Keynote Lecture: Ethanol/Gasoline engines, status and prospect		
15:00	Coffee Break					
15:30	<b>Biomass Processing</b>	<b>J. Berg</b> <i>the high throughput experimentation company</i>	... Biomass processing enhanced using high throughput experiment.	<b>Biofuel Application 1</b>	<b>M. Honkanen</b> <i>Nesté Oil</i>	Engine optimization for paraffinic fuels
16:00		<b>S. Möhring</b> <i>TU Kaiserslautern</i>	Assessment of regional lignocellulosic residue and waste availability		<b>M. Albrecht</b> <i>TU Braunschweig</i>	Investigations on butanols in a DISI engine
16:30		<b>A. Spieß</b> <i>RWTH Aachen University</i>	Integrated enzymatic hydrolysis of ionic-liquid-pretreated biomass		<b>D. Klein</b> <i>RWTH Aachen University</i>	The Ignition and Combustion Behavior of C8 Oxygenates
17:00	Coffee Break					
17:30	<b>Biofuel Refinery and Reference Process</b>	<b>M. Schlüter</b> <i>Deutsches Biomasse Forschungszentrum</i>	Methanation studies with a high pressure fixed bed tube reactor - ...	<b>Biofuel Application 2</b>	<b>O. Bhardwaj</b> <i>FEV GmbH</i>	Impact of HVO on emission performance and DPF regeneration...
18:00		<b>P. Ferrini</b> <i>Max-Planck Institut für Kohlenforschung</i>	Catalytic biorefining of lignocelluloses to useful lignin feeds...		<b>B. Stengel</b> <i>University of Rostock</i>	Influences of HVO and FAME on combustion and emissions in Diesel eng.
18:30		<b>K. Ulonska</b> <i>RWTH Aachen University</i>	Improvements in the process for the production of TMFB		<b>B. Leuchtle</b> <i>RWTH Aachen University</i>	Microbial contamination of biogenic fuels
19:30	Conference Dinner - forumM, Buchkremerstrasse 1-7					

Room "Brüsselsaal"

Room "K2"

## 2. International TMFB Conference June 16<sup>th</sup> – 18<sup>th</sup>, 2014, Aachen, Germany

Wednesday 18.06.2014

09:00	Keynote	<b>L. van der Wielen</b> <i>Delft University of Technology</i>	Keynote Lecture: Biomass beyond bioenergy: creating sustainable value
09:45	TMFB Report 1	<b>W. Leitner</b> <i>RWTH Aachen University</i>	TMFB Status Update Integrated Research Field A "From Biomass to Biofuels"
10:30	Coffee Break		
11:00	TMFB Report 2	<b>H. Pitsch</b> <i>RWTH Aachen University</i>	TMFB Status Update Integrated Research Field B "From Biofuels to Propulsion"
11:45	TMFB Report 2	<b>S. Pischinger</b> <i>RWTH Aachen University</i>	TMFB Status Update Core Interaction Field "Fuel Design"
12:30	TMFB Report 2	<b>S. Pischinger</b>	Summary and Closure
12:45	Lunch Break		
13:45	IAB	<b>End of the Public Part of the Conference</b>  <b>Meeting of the International Advisory Board of TMFB</b>	
17:00			

**Contact:**

Fuel Design Center Aachen

**Florian Kremer**

RWTH Aachen University

Tel.: +49 241 80-95352

[kremer@vka.rwth-aachen.de](mailto:kremer@vka.rwth-aachen.de)

[www.fuelcenter.rwth-aachen.de](http://www.fuelcenter.rwth-aachen.de)