

September | 1<sup>st</sup>-4<sup>th</sup> | 2009  
Vienna | Austria

**I | C | P | S** **09**  
International Conference on Polygeneration Strategies

**PROGRAM**

[www.icps09.org](http://www.icps09.org)

## TOPICS

- Gas production
- Gas cleaning
- Syngas utilization
- Life cycle analysis

## CHARGES

Regular:	€ 450,--
Students:	€ 350,--

## SCIENTIFIC COMMITTEE

Hermann Hofbauer



Martin Kaltschmitt



Johan Einar Hustad



Pier Ugo Foscolo



Samuel Stucki



## AIM OF THE CONFERENCE

Biomass gasification is a key technology for biomass utilization in the future.

All forms of energy currently used can be produced via conversion of solid biomass into syngas: heat, electricity and synthetic biofuels. In former years, the main focus of R&D in the field of biomass conversion was on heat and electricity production. This was the topic of several conferences.

Today, things have changed. Syngas production, syngas cleaning and syngas utilization are subject of research programs in several countries and enormous progress has been achieved in this field in the recent years. Furthermore, polygeneration is the key word for future efficient and sustainable biomass utilization.

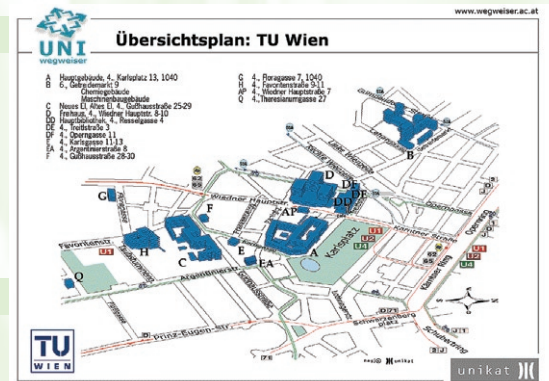
The main aim of the conference is to present the current state-of-the-art of syngas production, syngas cleaning and syngas utilization. Furthermore, to offer a platform for exchange of information, results and experiences as well as networking.

Therefore, national and international researchers as well as industrial representatives from the manufacturer and utility side are invited to contribute to the success of the conference.

**ADDRESS**

**Vienna University of Technology**  
Karlsplatz 13  
1040 Wien

**MAP**



**CONFERENCE VENUE**



**SOCIAL EVENTS**















Tuesday  
1<sup>st</sup> of September 2009  
start time: 19:30pm  
  
Rathaus - Vienna City Hall  
Lichtenfelsgasse 2  
1010 Wien



Wednesday  
2<sup>nd</sup> of September 2009  
  
Heurigenrestaurant  
"Schübl Auer"  
Zahnradbahnstrasse 17  
1190 Wien

08:00	<b>Registration</b>			
09:00	<b>Initial welcome</b>	Hofbauer H.		
<b>GAS PRODUCTION</b>				
09:10	<b>Gas Production – Key Note Lecture</b>	Foscolo P.U.	University of L'Aquila (Italy)	
09:40	<b>The new Chalmers research-gasifier</b>	Seemann M. C., Thunman H.	CHALMERS Technical University	
10:00	<b>Pressurized Entrained Gasification of Slurries from Biomass</b>	Stahl R., Henrich E.	Forschungszentrum Karlsruhe	
10:20	<b>Influence of operating conditions on gas composition, soot and tar in entrained flow gasification of biomass</b>	Ke Q., Weigang L.	Technical University of Denmark	
10:40	<b>Coffee break</b>			
11:15	<b>Study of pressure effect in steam gasification of biomass</b>	Ravel S., Valin S.	CEA Grenoble	
11:35	<b>The Development and Operation of a 100kW Dual Fluidised Bed Biomass Gasifier for Production of High Quality Producer Gas</b>	Bull D. R., Gilmour I. A.	Iowa State University	
12:15	<b>Gasification characteristics of biomass/coal blend in a dual circulating fluidized bed reactor</b>	Seo M. W., Goo J H.	Korea Advanced Institute of Science and Technology	
12:35	<b>Improvement of biomass steam gasification in DFB process by in-situ CO2 absorption</b>	Marquard-Möllenstedt T., Zuberbühler U.	Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW)	
12:55	<b>Lunch</b>			
<b>GAS CLEANING</b>				
14:00	<b>Gas Cleaning and Gas Utilization - Key Note Lecture</b>			
	<b>Comparative Assessment of Polygeneration Strategies</b> (working title)	Hansen J. B., Højlund-Nielsen P. E.	Haldor Topsøe A/S	
14:40	<b>POX Steam Reforming in a Plasma-Assisted GlidArc Reformer</b>	Owring F., Foong C.	Department of Energy and Process Engineering, NTNU	
15:00	<b>High Temperature Gas Treatment for the Operation of a Solid Oxide Fuel Cell (SOFC)</b>	Martini S., Kleinhappl M.	Bioenergy 2020+	
15:20	<b>Coffee break</b>			
15:50	<b>Flexible dry high temperature syngas cleaning</b>	Leibold H., Mai R.	Forschungszentrum Karlsruhe	
16:10	<b>Novel Bio-syngas Cleanup Process</b>	Leppin D., Basu A.	Gas Technology Institute (GTI)	
16:30	<b>Experiences on tar removal strategies in a 3 MWth fluidised bed gasification unit</b>	Gomez-Barea A., Campoy M.	University of Seville	
16:50	<b>Catalytic Ceramic Filters Integrated in a Fluidized Bed Biomass Gasifier</b>	Rapagnà S., Gallucci K.	University of L'Aquila	
19:30–22:30	<b>Social program</b>	<b>Reception at Vienna City hall</b>		

08:00	<b>Registration</b>			
09:00	<b>Opening</b>	Hofbauer H.		
<b>GAS UTILIZATION</b>				
09:10	<b>Allothermal gasification of biomass into chemicals and secondary energy carriers</b>	Zwart R. W. R., Van der Drift A.	Energy research Centre of the Netherlands (ECN)	
09:30	<b>From SynGas to Fuels – Microreactor Technology in Fischer-Tropsch (FT) Synthesis</b>	Lukas M., Tekautz G.	Joanneum Research	
09:50	<b>Bio-SNG from biomass - First results of a demonstration plant</b>	Rehling B., Hofbauer H.	Vienna University of Technology	
10:10	<b>Long-term tests on methanation with tar and sulphur loaded syngas</b>	Kienberger T.	Graz University of Technology	
10:40	<b>Coffee break</b>			
11:05	<b>Low Life Cycle Greenhouse Gas Emissions Enabled by Microchannel Technology</b>	McDaniel J., Kilanowski D.	Velocys, Inc.	
11:25	<b>Production of DME from wood</b>	Mevisen N., Schulzke T.	Fraunhofer UMSICHT	
11:55	<b>Poster session</b>			
12:35	<b>Lunch</b>			
<b>LIFE CYCLE ANALYSIS, SIMULATION AND TECHNO ECONOMICAL STUDIES</b>				
13:45	<b>Life Cycle Analysis, Simulation and Techno Economical Studies – Key Note Lecture</b>	Kaltschmitt M.	Technical University Hamburg-Harburg	
14:25	<b>Life Cycle Assessment of the Polygeneration of FT-Fuels, SNG, Electricity and Heat via Gasification of Wood and Straw – Examples from Austria</b>	Jungmeier G., Lingitz A.	Joanneum Research	
14:45	<b>Gasification and Green Gas development in the Netherlands</b>	van Asselt W. A.	SenterNovem	
15:05	<b>Coffee break</b>			
15:35	<b>Biomass versus bio-oil gasification for syngas production for BTL</b>	Bridgwater A. V., Dimitriou I.	Bioenergy Research Group Aston University	
15:55	<b>Small-Scale Generation of Substitute Natural Gas</b>	Karl J., Gallmetzer G.	Graz University of Technology	
16:15	<b>Bio-SNG concept development with focus on environmental aspects</b>	Rönsch S., Schmersahl R.	German Biomass Research Centre	
16:35	<b>Biomass gasification for ammonia production</b>	Gilbert P., Thornley P.	University of Manchester	
19:30– 23:30	<b>Social program</b>	<b>Heuriger „Schübl Auer“ in Nußdorf</b>		

08:00	<b>Registration</b>			
08:45	<b>Welcome</b>	Hofbauer H.		
<b>SMALL AND MIDDLE SCALE GASIFIERS – FROM EXPERIMENT TO PRACTICE</b>				
09:00	<b>Experiences and results derived from the gasifier at the TUV</b>	Pfeifer C.	Vienna University of Technology	
09:20	<b>Design, construction and operational experiences with a 3 MW Torbed wood gasifier in the Netherlands</b>	Poldervaart J, van Doorn J	Polow Energy Systems	
09:40	<b>Preliminary Results with a 450kWth Bubbling Bed Gasifier</b>	Ufuk K, Serhat G, Hayati O	TUBITAK MAM Energy Institute	
10:00	<b>'Ankur' Biomass Gasification Technology - Field Experiences</b>	Jain B C	Ankur Scientific Energy Technologies Pvt. Ltd.	
10:20	<b>Safety relevant experiences on Biomass gasifier CHPs</b>	Seifert U	Fraunhofer UMSICHT	
10:40	<b>Coffee break</b>			
<b>GASIFICATION GUIDE</b>				<b>Intelligent Energy</b>  Europe
11:15	<b>Introduction</b>	EU project "Gasification Guide" - Project Team		
11:35	<b>Presentation of the final Guideline</b>	Voss J, Knoeff H.	BTG Biomass Technology Group, Netherlands	
12:15	<b>Further Developments</b>	EU project "Gasification Guide" - Project Team		
12:35	<b>Lunch</b>			
13:45	<b>Plenary Discussion</b>	EU project "Gasification Guide" - Project Team		
14:45	<b>Summing up</b>	EU project "Gasification Guide" - Project Team		
<b>ICPS 2009</b>				
15:05	<b>Compendium of the 1st International conference on Polygeneration Strategies</b>	Hofbauer H., Kaltschmitt M., Hustad J. E., Foscolo P. U., Stucki S.		

FRIDAY, 4<sup>th</sup> of September 2009

08:00–12:00	<b>Excursion</b>	<b>Visitation of the CHP Oberwart</b>
12:00–13:00	<b>Lunch</b>	
13:00–18:00	<b>Excursion</b>	<b>Visitation of the CHP Güssing (Technikum, BioFT, BioSNG)</b>

## EXCURSION

Friday the 4<sup>th</sup> of September 2009

*The new biomass gasifier (CHP)  
plant in Oberwart*



## During the excursion the following places of interest will be visited

- The new biomass gasifier (CHP) plant in Oberwart
- The biomass gasifier CHP plant in Güssing
- The BioSNG demonstration plant
- The BioFiT (Fischer Tropsch) research plant
- The new Bioenergy 2020+ competence center in Güssing

## PLACES OF INTEREST



*The new Bioenergy 2020+  
competence center*



*The CHP Güssing and the  
BioSNG plant nearby*



*The CHP Güssing in front of the  
history castle*



### CHARGES

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Students:	€ 350,--

### INFORMATION

#### Vienna University of Technology

Institute of Chemical Engineering

Department of Chemical Process Engineering and Fluidization

ICPS `09 Organization Committee

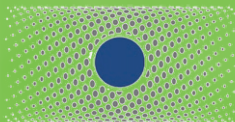
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[www.icps.org](http://www.icps.org)

Please use the quick link to the secured confernece booking page at our homepage: [www.icps09.org](http://www.icps09.org)



Institute of Chemical Engineering

The Gasification Guide Project  
is funded by the European Union

Intelligent Energy  Europe



TECHNISCHE  
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TECHNOLOGY



# Health Safety Environment Workshop

[www.gasification-guide.eu](http://www.gasification-guide.eu)

„On the way to safe and ecofriendly biomass gasification“

**3<sup>rd</sup> of September 2009**  
**University of Technology**  
**Vienna, Austria**

as a part of the:

**I | C | P | S<sup>09</sup>**

**International Conference on Polygeneration Strategies**

Vienna University of Technology  
1<sup>st</sup> to 4<sup>th</sup> of September 2009  
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Intelligent Energy  Europe

