

September | 1st-4th | 2009
Vienna | Austria

I | C | P | S ⁰⁹

International Conference on Polygeneration Strategies

PROGRAM

www.icps09.org

TOPICS	CHARGES
→ Gas production	Regular: € 450,--
→ Gas cleaning	Students: € 350,--
→ Syngas utilization	
→ Life cycle analysis	

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.

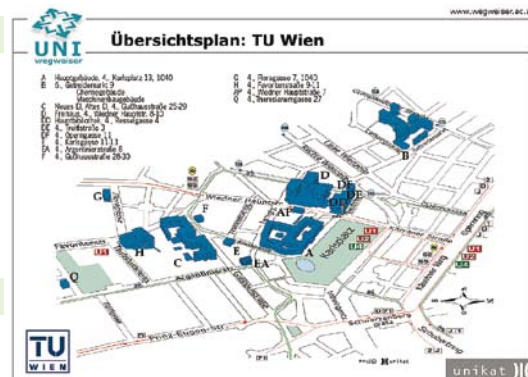
The main aim of the conference is to present the current state-of-the-art of syngas production, syngas cleaning and syngas utilization. Furthermore, to offer a platform for exchange of information, results and experiences as well as networking.

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



Wednesday
2nd of September 2009













*Transfer from the conference venue to the restaurant will be arranged.
Further Information will be announced at the registration desk.*

Heurigenrestaurant
"Schübl Auer"
Zahnradbahnstrasse 17
1190 Wien

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

PROGRAM

WEDNESDAY, 2nd of September 2009

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

PROGRAM

THURSDAY, 3rd of September 2009

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

FRIDAY, 4th of September 2009

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

EXCURSION

Friday the 4th 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

Regular:	€ 450,--
Students:	€ 350,--

INFORMATION

Vienna University of Technology

Institute of Chemical Engineering

Department of Chemical Process Engineering and Fluidization

ICPS '09 Organization Committee

Getreidemarkt 9/166

1060 Vienna

+43 1 588 01-15954

www.icps.org

Please use the quick link to the secured confernece booking page at our homepage: **www.icps09.org**



Institute of Chemical Engineering

The Gasification Guide Project
is funded by the European Union

Intelligent Energy  Europe



TECHNISCHE
UNIVERSITÄT
WIEN

VIENNA
UNIVERSITY OF
TECHNOLOGY