

Programme
 Sunday 2 May – Thursday 6 May
 Hilton Hotel

Sunday 2 May 2010	
18:00 – 20:00	Registration
19:00 – 22:00	Welcome Evening Restaurant Bierhaus Dampfschiff Hilton Hotel
Monday 3 May 2010	
08:00 – 16:00	Registration
08:30 – 16:00	Poster Session and Exhibition
08:30 – 09:00	Opening Ceremony
09:00 – 09:40	Plenary Session
	Clean Coal – Quo vadis? - Prof. Dr.-Ing. Bernd Meyer – Rector TU Bergakademie Freiberg Chinese energy challenges and sustainable way-out - Prof. Li Zheng – Director Tsinghua BP Clean Energy Research and Education center [China]
09:40 – 10:10	Coffee Break
10:10 – 12:00	Session 1: Polygeneration Chair: Dr. Gerhard Beysel
10:10 – 10:40	01-1 Keynote: Gasification: status, outlook and technical developments / Frank Hannemann – Siemens Fuel Gasification Technology GmbH & Co. KG [Germany]
10:40 – 11:00	01-2 A dual-gas sourced approach to methanol/power polygeneration systems design and analysis / Fen He - State Key Laboratory of Power Systems, Department of Thermal Engineering, Tsinghua University [China]
11:00 – 11:20	01-3 CtL/CtG – boundary conditions and chances of implementation / Dr. Frank Schwendig - RWE Power AG [Germany]
11:20 – 11:40	01-4 XtL – the Topsøe approach / Maibritt Mastrup - Haldor Topsøe A/S [Denmark]
11:40 – 12:00	01-5 Polygeneration - evaluation of technologies and concepts for demand driven co-production of electricity and liquids from coal / Robert Pardemann – TU Bergakademie Freiberg [Germany]
12:00 – 13:00	Lunch

13:00 – 15:10	Session 2: IGCC / CCS Chair: Dr. Hubert Höwener		Session 3: Integration of nuclear process heat in chemical processes I Chair: Prof. Martin Bertau	
13:00 – 13:30	02-1	Keynote : RWE's 450-MW IGCC-CCS project – status and perspective / Werner Renzenbrink - RWE Power [Germany]	03-1	Keynote: Research activities using nuclear systems as energy source for the gasification of coal / Prof. Dr. Kurt Kugeler - RWTH Aachen [Germany]
13:30 – 13:50	02-2	Advances in gasification projects and technology for the next generation of IGCC and CCS plants / Marcus Scholz - GE Energy [Spain]	03-2	Survey on 20 years of R&D on nuclear heat applications in Germany I / Dr. Werner von Lensa, Dr. Karl Verfondern - FZ Jülich [Germany]
13:50 – 14:10	02-3	RAM evaluation for gasification and IGCC plants / Dr. Ariane Sutor - Siemens Corporate Technology [Germany]	03-3	Survey on 20 years of R&D on nuclear heat applications in Germany II / Dr. Karl Verfondern - FZ Jülich [Germany]
14:10 – 14:30	02-4	R&D plant results and experience in the Puertollano IGCC / Francisco Garcia Pena – ELCOGAS, S.A. [Spain]	03-4	High temperature reactors: The nuclear cogeneration alternative for fossil fuel usage in process industry / Sander de Groot, NRG [The Netherlands], speaker Dr. Werner von Lensa - FZ Jülich [Germany]
14:30 – 14:50	02-5	Environmental performance of IGCC power plants / Stephen Jenkins - CH2MHILL, INC. [USA]; (speaker Christopher Higman – Syngas Consultants GmbH [Germany])	03-5	The importance of high temperature reactors for the gasification of coal in Poland / Ludwig Pienkowski - University of Warsaw [Poland]
14:50 – 15:10	02-6	Progress update of the MHI air blown IGCC and gasification plant / Koichi Sakamoto - Power Systems Headquarters, Mitsubishi Heavy Industries, Ltd. [Japan]	03-6	Nuclear options for process heat generation / Dr. Dittrich Knoche – Westinghouse Germany GmbH [Germany]
15:10 – 15:40	Coffee Break			
15:40 – 17:00	Session 4: Biomass to Liquid Chair: Dr. Steffen Krzack		Session 5: Integration of nuclear process heat in chemical processes II Chair: Prof. Antonio Hurtado	
15:40 – 16:00	04-1	Bio energy with CO ₂ capture and storage (BECCS): conversion routes for negative CO ₂ emissions / Michiel Carbo - Energy Research Centre of the Netherlands (ECN) [The Netherlands]	05-1	Potential Applications of Nuclear Cogeneration in Coal - Dr. Manuela Musella - European Commission [The Netherlands]
16:00 – 16:20	04-2	BtL process development: simulation and techno-economic assessment of several technical options / Dr. Guillaume Boissonnet, speaker Geert Haarlemmer - CEA Grenoble [France]	05-2	Potential use of nuclear energy in the future oil and gas industry - Jacques Ruer / Saipem [France]
16:20 – 16:40	04-3	Bio-syngas via CHOREN's gasification technology / Matthias Rudloff – CHOREN Industries GmbH [Germany]	05-3	CO ₂ as a raw material in chemical synthesis and fuel refinery – potential contribution of nuclear process heat / Prof. Dr. Martin Bertau – TU Bergakademie Freiberg [Germany]
16:40 – 17:00	04-4	Determination of production costs and LCA for BtL-fuels using different gasification and synthesis systems / René Stahlschmidt – TU Bergakademie Freiberg [Germany]	05-4	Nuclear – coal synergy for coal liquefaction with CO ₂ recycling / Dr. Jerzy Cetnar - University of Krakow [Poland]
19:00 – 22:00	Conference Dinner Coselpalais			

Tuesday 4 May 2010

08:00 – 16:00	Registration			
08:30 – 16:00	Poster Session and Exhibition			
08:30 – 10:10	Session 6: Fluidised Bed Gasification Chair: Dr. David Harris		Session 7: Concept Studies Chair: Luis Robles	
08:30 – 08:50	06-1	Development and modelling of 3 rd generation gasification / Martin Graebner – TU Bergakademie Freiberg [Germany]	07-1	CO ₂ load in the process of hydrogen production by coal gasification / Dr. Andrzej Strugala (speaker: Dr. Marek Sciazko) – AGH University of Science and Technology [Poland]
08:50 – 09:10	06-2	A Review of Fluidized Bed Gasification Technology / Prof. Todd Pugsley – University of Saskatchewan (speaker Prof. Nader Mahinpey / University of Calgary) [Canada]	07-2	Hierarchical structured exergetic analysis of an IGCC concept with carbon capture / Christian Kunze – TU München [Germany]
09:10 – 09:30	06-3	Gasification of Australian lignites for power generation and – research and development needs for power generation and production of exportable fuels / Sankar Bhattacharya – Monash University [Australia]	07-3	Potential of IGCC-CCS power plants using lignite / Michael Trompelt – TU Bergakademie Freiberg [Germany]
09:30 – 09:50	06-4 (04-5)	Biomass fluidized bed gasification for fuel gas / Zhang Yongqi - Institute of Coal Chemistry [China]	07-4	Polygeneration systems for the provision of SNG, power and heat – a concept study / Stefan Roensch – German Biomasse Research Centre [Germany]
09:50 – 10:10	06-5	Gasoline and power via air blown gasification of biomass / Martin Dan Palis Soerensen – Haldor Topsøe A/S [Denmark]	07-5	Potentials and research demand of UCG-CCS / Stephan Peters – DMT GmbH & Co. KG [Germany]
10:10 – 10:40	Coffee Break			
10:40 – 12:30	Session 8: Entrained Flow Gasification Chair: Karsten Radtke		Session 9: Fuel Upgrading Chair: Dr., Manfred Wirsum	
10:40 – 11:10	08-1	Keynote: PRENFLO for biomass + coal co-gasification / Karsten R. Radtke / Max Heinritz-Adrian – Uhde GmbH [Germany]	09-1	Introduction to the Centre for Innovation Competence “Virtual High Conversion Processes” (VIRTUHCON) and to the German Centre of Energy Resources / Prof. Hasse, Dr. Heiner Gutte – TU Bergakademie Freiberg [Germany]
11:10 – 11:30	08-2	PWR compact gasification development / Dr. Kenneth Sprouse (speaker Timothy Saunders) – Pratt&Whitney Rocketdyne Inc. – United Technologies Corp. [USA]	09-2	BO ₂ torrefaction technology, an enabling technology for entrained-flow gasification of biomass / Dr. Heiko Gerhauser – ECN Energy Research Centre of the Netherlands [The Netherlands]
11:30 – 11:50	08-3	Technology and operational experience – the Shell perspective / Steffen Jancker – Shell Global Solutions Upstream International B.V. [The Netherlands]	09-3	Coal/biomass pyrolysis as initial step in gasification – experiments and modelling / Denise Reichel – TU Bergakademie Freiberg
11:50 – 12:10	08-4	Pressurised entrained flow gasification of slurries from biomass / Ralph Stahl – Forschungszentrum Karlsruhe [Germany]	09-4	Rotary kiln pyrolysis – first results of a 3 MW pilot plant / Michael Halwachs – Bioenergy 2020+GmbH [Austria]
12:10 – 12:30	08-5	New insights into coal conversion and slag formation during entrained flow gasification and their impacts on gasification performance / Dr. Daniel Roberts – CSIRO Energy Technology [Australia]	09-5	Promoting projects to optimise biomass energy use - A programme in the framework of the German Climate Initiative, funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety / Diana Pfeiffer – German Biomass Research Centre [Germany]
12:30 – 13:30	Lunch			

13:30 – 15:10	Session 10: Fixed Bed Gasification Chair: Martin Gall		Session 11: Fundamentals and Ash Behaviour Chair: Prof. Frans Waanders	
13:30 – 13:50	10-1	Pipe reactor gasification studies – petrographic particle type analysis as a function of feed coal particle size / Prof. Frans Waanders – North-West University Potchefstroum [South Africa]	11-1	Upgrading of brown coal for enhancing gasification rate / Kouichi Miura – Kyoto University [Japan]
13:50 – 14:10	10-2	Updraft gasification: A status on the Harboore technology / Robert Heeb – Babcock & Wilcox Vølund A/S [Denmark]	11-2	Coal ash behaviour in reducing environments (CABRE) III / Joshua Stanislawski – Energy & Environmental Research Center (EERC) [USA]
14:10 – 14:30	10-3	Commercial application of BGL gasifiers / Mathias Olschar – Envirotherm GmbH [Germany]	11-3	Model-based evaluation and reduction of heavy metals dissolved in the slag by batch/continuous extraction of recycling char in an IGCC process / Prof. Yoshihiko Ninomiya – Chubu University [Japan]
14:30 – 14:50	10-4	Trace elements behaviour in solids delivered from gasification of Australian coals / Dr. Alexander Ilyushechkin (speaker Dr. Daniel Roberts) – CSIRO [Australia]	11-4	On the determination of the structure by high temperature X-ray diffraction on molten levitated coal slag / Dr. Patrick Masset – TU Bergakademie Freiberg [Germany]
14:50 – 15:10	10-5	Oxygen-blown gasification and fixed-bed Fischer-Tropsch synthesis of coal and biomass / Joshua Strege (speaker Jason Laumb) – Energy & Environmental Research Center (EERC) [USA]	11-5	Flow characteristics and rheological properties of coal ash slag at ultra-high temperature / Song Wenjia – East China University of Science and Technology [China]
15:10 – 15:40	Coffee Break			
15:40 – 17:20	Session 12: Gas Cleaning Chair: Jason Laumb			
15:40 – 16:00	12-1	A compact granular bed filter for IGCC hot gas clean-up / Kavitha Pathmanathan – Norwegian University of Science and Technology [Norway]	11-6	Numerical analysis of a radiant syngas cooler / Hüseyin Yilmaz – University of Duisburg-Essen (LUAT) [Germany]
16:00 – 16:20	12-2	Flexible dry HT gas cleaning of syngas from the entrained flow gasification of biogenic slurries / Hans Leibold – Karlsruhe Institute of Technology (KIT), Institute for Technical Chemistry [Germany]	11-7	Radiotracer for process investigation / Dr. Albert Zeuner – Fraunhofer-Institut für Zerstörungsfreie Prüfverfahren [Germany]
			Session 13: Syntheses Chair: Poul Erik Hojlund Nielsen	
16:20 – 16:40	12-3	Biomorphic ceramics materials for high temperature and pressure industrial filtration processes / José Vicente García-Barbosa – University of Sevilla [Spain]	13-1	Biomass-to-DME with novel plasma-based technologies / Dr. How-Ming Lee – Institute of Nuclear Energy Research [Taiwan]
16:40 – 17:00	12-4	High temperature producer gas treatment for clean gas applications / Stefan Martini – Bioenergy 2020+ GmbH [Austria]	13-2	New products made of synthesis gas derived from biomass / Tim Schulzke (speaker Kai Girod) – Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT [Germany]
17:00 – 17:20	12-5	Development of physical model of rockmass behavior during underground gasification of thin coal seams / Roman Dychkovskiy – National Mining University Dnipropetrovsk [Ukraine]	13-3	Advanced synthetic jet fuels from combined algae and coal conversion / Rocco Fiato – Accelergy Corporation [USA], speaker Dr. Carsten Heide – EERC [USA]
19:00 – 20:30	Guided city tour			

Wednesday 5 May 2010		
08:00 – 12:00	Registration	
08:30 – 13:00	Poster Session and Exhibition	
08:30 – 10:20	Session 14: Syngas Upgrading Chair: Christopher Higman	
08:30 – 09:00	14-1	Keynote: Selection of wash systems for sourgas removal / Dr. Peter M. Fritz (speaker Barbara Munder) – Linde LE [Germany]
09:00 – 09:20	14-2	Advanced H ₂ S and CO ₂ removal technologies for synthesis gases / Howard Meyer – Gas Technology Institute [USA]
09:20 – 09:40	14-3	Condensed rotational separation for CO ₂ capture in coal gasification processes / Prof. J.J.H. Brouwers – Eindhoven University of Technology [The Netherlands]
09:40 – 10:00	14-4	Performance and economics of a planar WGS membrane reactor for coal gasification / Michael Dolan (speaker Dr. David Harris) – CSIRO Energy Technology [Australia]
10:00 – 10:30	Coffee Break	
10:30 – 12:00	Session 15: Gas Technologies Chair: Dr. Rajender Gupta	
10:30 – 11:00	15-1	Keynote: Air Liquide – Lurgi, Your partner for XtL technologies / Max-Michael Weiss (speaker Dr. Waldemar Liebner) – Lurgi GmbH/ Air Liquide Group [Germany]
11:00 – 11:20	15-2	Slim POX design for gasification / Hanno Tautz – Linde LE [Germany]
11:20 – 11:40	15-3	Development and flame diagnostics of high pressure partial oxidation processes / Dr. Magnus Mörtberg - Lurgi GmbH [Germany]
11:40 – 12:00	15-4	STF-technology – new technology for production of high octane gasoline from synthesis gas / Dr. Mario Kuschel – CAC Chemnitz [Germany]
12:00 – 12:20	Closing Ceremony	
12:20 – 13:20	Lunch	
14:00 – 18.30	Technical Tour 1 Freiberg	
Thursday 6 May 2010		
07:00 – 18:00	Technical Tour 2 Vresova	