

18th INTERNATIONAL CONFERENCE
PROCESS ENGINEERING AND CHEMICAL PLANT DESIGN
Berlin, 19th - 23rd September 2011

Conference Guide



CONFERENCE PROGRAM

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CONFERENCE PROGRAM

3

PROGRAM OVERVIEW

Monday, 19th September 2011, Room H 0112:

9:00 – 12:30 Lectures
12:30 – 14:00 Lunch
14:00 – 17:00 Lectures

Tuesday, 20th September 2011, Room H 0112:

9:00 – 12:45 Lectures
12:45 – 14:15 Lunch
14:15 – 15:45 Lectures
15:45 Visiting of laboratories and technical devices of the Chair
Process Dynamics and Operation

Wednesday, 21st September 2011:

13:00 Visiting of the company Bayer Schering
18:00 Bowling

Thursday, 22nd September 2011, Room H 0112:

9:00 – 12:00 Lectures
12:00 – 13:30 Lunch
13:30 – 15:45 Final panel discussion
15:45 Visiting of laboratories and technical devices of the Chair
Chemical Engineering/ End of the Conference

Friday, 23rd September 2011:

Departure of the Guests

CONFERENCE PROGRAM

Monday, 19th September 2011, Room H 0112

- 9:00 Opening speeches**
G. Wozny, Leiter des Fachgebiets Dynamik und Betrieb technischer Anlagen, TU Berlin;
L. Kroh, Dekan der Fakultät III, TU Berlin;
H. Ermel, Leiter der Außenbeziehungen der TU Berlin
- 9:30 Solid-liquid extraction from plants with a bidisperse porous structure – experimental kinetics and modeling**
B. Tal-Figiel, Institute of Chemical and Process Engineering, Cracow University of Technology
- 10:00 Development and Experimental Verification of a Claus Process Combustion Chamber Model**
Z. Guetta¹, J.C. Schöneberger², H. Arellano-Garcia¹, H. Thielert², G. Wozny¹
¹Chair of Process Dynamics and Operation, TU Berlin; ²Uhde GmbH Dortmund
- 10:30 Safety related characteristic of chemically unstable Gases**
M. Gula, J. Steinbach, TU Berlin;
K. Holtappels, A. Acikalin; Bundesanstalt für Materialforschung und –prüfung, Berlin;
H.-P. Schildberg; BASF SE, Ludwigshafen;
A. Kobiera, Politechnika Warszawska;
- 11:00 COFFEE BREAK**
- 11:30 Influence of surfactants on fluid dynamics and mass transfer of single droplets**
N. Paul, M. Kraume, Fachgebiet Verfahrenstechnik, TU Berlin
- 12:00 Untersuchungen zur Fluidodynamik von ein- und zweiphasigen Rührwerkströmungen**
J. Talaga, Cracow University of Technology, Faculty of Mechanical Engineering, Institute of Thermal and Process Engineering
- 12:30 LUNCH**
- 14:00 Phase Equilibria of Surfactant Containing Systems**
P. Schrader, U. Dorn, A. Kulaguin – Chicaroux and S. Enders,
Chair of Thermodynamics, TU Berlin
- 14:30 Customization of thermodynamic models of electrolytes for incorporation in CFD codes**
Z. Jaworski, E. Cydzik West Pomeranian University of Technology
- 15:00 Cross-Association of Multi-Component Systems**
K. O. Langenbach^{1,2}, S. Enders²
¹GSD Wärmetechnik GmbH, 57250 Netphen, Germany, ²Technical University of Berlin, Chair of Thermodynamics
- 15:30 COFFEE BREAK**

CONFERENCE PROGRAM

5

Monday, 19th September 2011, Room H 0112

16:00 Mensch-Energie-Umwelt, reale Möglichkeiten der Beschaffung ökologisch sauberer Wärmeenergie für private Haushalte

J. Magiera, Institut für Chemische- und Prozessverfahrenstechnik, TU Krakau

16:30 Die Arbeitsergebnisse einer Heizungsanlage mit drei Energiequellen und ihre Steuerung in dem Online-System.

K. Neupauer, Institut für Chemische- und Prozessverfahrenstechnik, TU Krakau

17:00 End of the 1st day

CONFERENCE PROGRAM

Tuesday, 20th September 2011, Room H 0112

- 9:00 Opening speech**
J. Steinbach, Präsident der TU Berlin
- 9:15 Evaluation of Integration Approaches to DAE Systems in Engineering Applications**
M. N. Cruz Bournazou, D. Domashk, T. Barz, G. Wozny, H. Arellano-Garcia, Chair of Process Dynamics and Operation, TU Berlin
- 9:45 Comparison of the mathematical model of time dependence of absorptive suspension and heat resistance of the sludge**
*W. Szatko¹, W. Bliniczew², J. Krawczyk¹; ¹Cracow University of Technology, Faculty of Mechanical Engineering, Institute of Thermal and Process Engineering
²Ivanovo State University of Chemistry and Technology,*
- 10:15 Symbolic generation of higher-order derivatives with MOSAIC**
V. A. Merchan, S. Kuntsche, H. Arellano-Garcia, G. Wozny, Chair of Process Dynamics and Operation, TU Berlin
- 10:45 COFFEE BREAK**
- 11:15 The vibromixers – a current state of research and trends of further investigations**
R. Wójtowicz, Cracow University of Technology, Faculty of Mechanical Engineering, Institute of Thermal and Process Engineering
- 11:45 Reactive mixing and dispersion processes in rotor-stator devices**
J. Bałdyga, M. Jasińska, Faculty of Chemical and Process Engineering, Warsaw University of Technology
- 12:15 The dual impeller capacities in the light of CMA model**
J. Kamieński, A. Duda, Cracow University of Technology, Faculty of Mechanical Engineering, Institute of Thermal and Process Engineering
- 12:45 LUNCH**
- 14:15 CO₂ capture and utilization for the oxidative coupling of methane process**
S. Stünkel, G. Wozny, Chair of Process Dynamics and Operation, TU Berlin
- 14:45 Hyperbranched Polymers for CO₂ Capture: Data Estimation and Process Simulation**
W. Martini, G. Wozny, Chair of Process Dynamics and Operation, TU Berlin
- 15:15 Development of mixed-matrix-membranes for separation of gaseous hydrocarbons**
V. Löffler, M. Kraume, Fachgebiet Verfahrenstechnik, TU Berlin
- 15:45 Visiting of laboratories and technical devices of the Chair Process Dynamics and Operation**

CONFERENCE PROGRAM

7

Thursday, 22nd September 2011, Room H 0112

- 9:00 Design and modelling of a new periodical-steady state process for the oxidation of sulfur dioxide in the context of an emission free sulfuric acid plant**
R. Günther¹, J.C. Schöneberger², H. Arellano-Garcia¹, H. Thielert², G. Wozny¹
¹Chair of Process Dynamics and Operation, TU Berlin; ²Uhde GmbH Dortmund
- 9:30 Electric energy use and ecological analysis for production of flat-plate solar collectors**
A. Gluszek, Cracow University of Technology, Institute of Chemical and Process Engineering
- 10:00 Advanced Exergetic Analysis of Energy-Intensive Processes**
G. Tsatsaronis, T. Morosuk, Institut für Energietechnik, TU Berlin
- 10:30 COFFEE BREAK**
- 11:00 Novel and Intensified Process Design for Seawater RO Desalination Pre-treatment**
M. Beery¹, J.J. Lee², J.H. Kim², J.U. Repke³, G. Wozny¹
¹Chair of Process Dynamics and Operation, TU Berlin;
²Department of Environmental Science and Engineering, Gwangju Institute of Science and Technology (GIST)
³Institute of Thermal, Environmental and Natural Products Process Engineering, TU Bergakademie Freiberg
- 11:30 Anwendung des mittleren Geschwindigkeitsgradienten-Konzeptes auf die Modellierung von Flockungsprozessen**
M. Dyląg, J. Rosiński, J. Kamieński, Cracow University of Technology, Faculty of Mechanical Engineering, Institute of Thermal and Process Engineering
- 12:00 LUNCH**
- 13:30 Final panel discussion:**
- Review of the XVIII Conference
- Academic cooperation
- Joint Projects
- Teaching
- 15:45 Visiting of laboratories and technical devices of the Chair Chemical Engineering**

CONFERENCE PROGRAM

List of Authors

Acikalin, Aydan	22
Arellano-Garcia, Harvey	12, 93, 114, 156
Bałdyga, Jerzy	135
Barz, Tilman	93
Beery, Matan	217
Bliniczew, Walerian	103
Cruz-Bournazou, Mariano Nicolas	93
Cydzik, Eugeniusz	59
Domashk, D.	93
Dorn, Udo	49
Duda, Andrzej	145
Dylağ, Michał	225
Enders, Sabine	49, 67
Głuszek, Aneta	77
Guetta, Zion	12
Gula, Michał	22
Günther, Roland	156
Holtappels, Kai	22
Jasińska, Magdalena	135
Jaworski, Zdzisław	59
Kamiński, Jerzy	145, 225
Kim, Joon Ha	217
Kobiera, Arkadiusz	22
Kraume, Matthias	28, 207
Krawczyk, Janusz	103
Kulaguin-Chicaroux, Andres	49
Kuntsche, Stefan	114
Langenbach, Kai	67
Lee, Ji Jung	217
Löffler, Verena	207
Magiera, Janusz	168
Martini, Walter	198
Merchan Restrepo, Victor Alexandro	114
Morosuk, Tatiana	83

CONFERENCE PROGRAM

9

List of Authors

Neupauer, Krzysztof	178
Paul, Niklas	28
Repke, Jens-Uwe	217
Rosiński, Jerzy	225
Schildberg, Hans-Peter	22
Schöneberger, Jan	12, 156
Schrader, Philipp	49
Steinbach, Jörg	22
Stünkel, Steffen	188
Szatko, Wiesław	103
Tal-Figiel, Barbara	2
Talaga, Jan	38
Thielert, Holger	12, 156
Tsatsaronis, George	83
Wozny, Günter	12, 93, 114, 156, 188, 198, 217
Wójtowicz, Ryszard	124