DAY ONE – 27 JUNE 2011						
9.00-9.50	Plenary Lecture "Multiphase Flow in Micro and Mini Reactors –Synthesis of Fine Chemicals and Nanoparticles", Klavs F. Jensen, Department of Chemical Engineering, MIT, USA					
	ROOM 1		ROOM 2		ROOM 3	
10.00-10.20	Mixing of Binary Solids in Two- and Three-Phase Fluidized Beds	Lee, Dong Hyun; Chun, Byung Soon; Park, Ah-Hyung Alissa; Kim, Sang Done; Grace, John R.; Epstein, Norman	Predicting inter-phase mass transfer for idealized Taylor flow: A comparison of numerical frameworks	Donaldson, Adam A; Macchi, Arturo; Kirpalani, Deepak	Investigating Liquid-Solid Mass Transfer Multiplicity in Trickle Bed Reactors	Joubert, Rita; Nicol, Willie
10.20-10.40	Experimental study of gas-liquid mass transfer coupled with chemical reactions by digital holographic interferometry	Wylock, Christophe Etienne; Dehaeck, Sam; Cartage, Thierry; Colinet, Pierre; Haut, Benoît	CFD-based compartmental modelling of stirred tank reactors	Bashiri, Hamed; Chaouki, Jamal; Bertrand, François; Heniche, Mourad	INVESTIGATION OF LIQUID HYDRODYNAMICS IN TWO-DIMENSIONAL AIR-WATER BUBBLE COLUMN WITH RADIOACTIVE PARTICLE TRACKING	Upadhyay, Rajesh; Roy, Shantanu; Pant, Harish J.
10.40-11.00	Acid-gases removal by electrolytic solutions of amines in packed-column : rigorous modelling and experimental validation	Ahmadi, Aras; Meyer, Michel; Rouzineau, David; Prevost, Michel; Alix, Pascal; Laloue, Nicolas	Dynamics of Drop Impact and Spreading on Inclined Surfaces	Varun Kumar, V.; Buwa, Vivek V.	Catalytic SiC foam applied to Reactive Distillation	Leveque, Julien; Rouzineau, David; Prevost, Michel; Meyer, Michel
11.00-11.30	Coffee break					
11.30-11.50	2D simulations of partially wetted catalyst particles : a focus on heat transfer limitations	Bazer-Bachi, Frederic; Augier, Frederic; Santos, Bruno	Investigations on Hydrodynamics and Mass transfer in Gas-Liquid Stirred Tank Reactor using Computational Fluid Dynamics	Sivaraman, Savithri; Ranganathan, Panneerselvam	Combining Chaos Analysis, Information Entropy Theory and Radioactive Techniques for Flow Regime Identification in Both Bubble Columns and Fluidized Beds	Nedeltchev, Stoyan Novakov; Shaikh, Ashfaq; Fadha, Ahmed; Al Dahhan, Muthanna

11.50-12.10	Pressure Drop and Mass Transfer Studies in Structured Catalytic Packings	Zhigang, Lei; Chengna, Dai; Biaohua, Chen	Multi-scale analysis of gas-liquid interaction and CFD simulation of gas-liquid flow in bubble columns	Yang, Ning; Wu, Zongying; Chen, Jianhua; Wang, Yuhua; Li, Jinghai	Can we control the hydrodynamics of slurry bubble columns?	Hooshyar, Nasim; Hamersma, Peter J.; Mudde, Robert F.; van Ommen, J. Ruud
12.10-12.30	Hydrodynamics of gas liquid flow in minichannels bounded with permeable walls	Bi, Xiaotao Tony; Zhang, Lifeng; Wilkinson, David; Stumper, Jurgen; Wang, Haijiang	High-order simulation of a bubble column using Population Balance	Sporleder, Federico; Dorao, Carlos Alberto; Jakobsen, Hugo Atle	Effect of spent grains on flow regime transition in Bubble Column	Mota, André Manuel; Vicente, António A.; Teixeira, José A.
12.30-14.00	Lunch					
14.00-14.50	Plenary Lecture - "Advanced Eulerian models for multiphase flows", Rodney O. Fox, Department of Chemical and Biological Engineering, Iowa State University, USA					
15.00-15.20	Particle Fluctuations and Dispersion in Three-phase Fluidized Beds with Viscous and Low Surface Tension Media*	Lim, Hyun-Oh; Seo, Myung-Jae; Kang, Yong; Jun, Ki-Won	CFD simulation and experimental measurement of gas holdup and liquid interstitial velocity in internal loop airlift reactor	Simcik, Miroslav; Mota, Andre; Ruzicka, Marek; Vicente, Antonio; Teixeira, Jose; Drahoš, Jiří	Mass Transfer in Bubble Columns with Organic Liquids	Jordan, Uwe; Nedeltchew, Stoyan; Schumpe, Adrian
15.20-15.40	Direct numerical simulation of mass transfer between a gas and a turbulent falling liquid film	Gelbgras, Valérie; Drugmand, Jean-Christophe; Haut, Benoît	Shear- versus wake-induced lift force on a single bubble rising in sheared liquids	Rabha, Swapna S.; Buwa, Vivek V.	Analysis of bubble populations obtained in full-scale aeration tanks in clean water	Fayolle, Yannick; Cockx, Arnaud; Legendre, Dominique; Gillot, Sylvie
15.40-16.00	Comparative analysis of the absorption of CO2 in aqueous solutions of single and blended alkanolamines. Influence of thermal effects.	La Rubia García, Maria Dolores; Camacho Rubio, Fernando; Pacheco Reyes, Rafael; Sánchez Villasclaras, Sebastián; López García, Ana Belén	Computational fluid dynamics model development for macro-mixing assessment occurring in natural aerated open quarry for water storage	Martinelli, Laure; Talvy, Samuel; Haut, Benoit	Effects of viscosity and relaxation time on the hydrodynamics of gas-liquid systems	Olivieri, Giuseppe; Marzocchella, Antonio; Salatino, Piero
16.00-16.30	Coffee break					
16.30-16.50	The Influence of Operational	Stanovsky, Petr; Ruzicka, Marek C.;	Computational fluid dynamics applied to	Talvy, Samuel; Martinelli, Laure;	Development of closure laws for	Fourati, Manel; Raynal, Ludovic;

	Conditions on the Meniscus Dynamics in Bubble Formation	Drahoš, Jiří	the disinfection process by ozonation in an industrial plant.	Debaste, Frederic	eulerian two-fluid models for packed beds dedicated to CO2 absorption.	Roig, Veronique
16.50-17.10	Effect of a dispersed immiscible liquid phase on the hydrodynamics of a bubble column and ebullated bed	Pjontek, Dominic; Landry, Jérôme; McKnight, Craig; Hackman, Larry; Macchi, Arturo	CFD Simulation of air lift reactors: Design Optimization	Deshpande, Sagar S.; Dhotre, Mahesh T.	Application of Information Entropy Theory to Differential Pressure Fluctuations in a Bubble Column*	Nedeltchev, Stoyan Novakov
17.10-17.30	Effect of functional groups on CO2 capture in multiphase system of liquid-like Nanoparticle Organic Hybrid Materials (NOHMs)	Lin, Kunyi Andrew; Park, Youngjune; Park, Ah-Hyung Alissa	Numerical Simulation of Bubble Interactions Using an Adaptive Lattice Boltzmann Method	Yu, Zhao; Yang, Hui; Fan, L-S	Destruction of chlorinated organics by hydrotreatment using Ru/TiO2 catalyst	Dussa, Vikramkumar S.; Vaidya, Prakash D.

17.30-19.30	POSTER SESSION

DAY TWO – 28 JUNE 2011						
9.00-9.50	**Plenary Lecture - "Hybrid Simulation of Gas-Liquid and Gas-Liquid-Solid Bubbly Flows in Bubble Columns", Akio Tomiyama, Kobe University, Japan**					
	ROOM 1		**ROOM 2**		**ROOM 3**	
10.00-10.20	**Modelling and Measurement of Bubble Formation and Growth in Electroflotation Processes**	**Evans, Geoffrey Michael; Mohr, Steve; Donne, Scott; Sarkar, MD. Shahjahan Kaisar Alam; Machniewski, Piotr**	**CFD and experimental studies of reactive pulsing flow in environmentally-based trickle-bed reactors**	**Lopes, Rodrigo JG; Quinta-Ferreira, Rosa M**	**Potential of ionic liquids for VOC biodegradation in a two-liquid phase system**	**Quijano, Guillermo; Couvert, Annabelle; Amrane, Abdeltif**
10.20-10.40	**The Evaluation of Scale-up Procedures in GL and GLS Mechanically Agitated Vessels**	**Jafari, Rouzbeh; Chaouki, Jamal; Tanguy, Philippe**	**Numerical investigation of the drag force on bubbles in bubble swarms**	**Roghair, Ivo; van Sint Annaland, Martin; Kuipers, Hans**	**Development of Microbubble Aerator for Waste Water Treatment Using Aerobic Activated Sludge**	**Terasaka, Koichi; Hirabayashi, Ai; Nishino, Takanori; Fujioka, Satoko; Kobayashi, Daisuke**
10.40-11.00	**Quantifying SGS Turbulent dispersion force and its effect using One-equation sub-grid scale (SGS) Euler–Euler large eddy simulation (EELES) Model in a Gas-Liquid, a Liquid-Liquid and a Solid-Gas system.**	**Tabib, Mandar Vasudeo; Schwarz, Philip**	**Two phase natural convection: CFD Simulations and PIV measurement**	**Gandhi, M. S.; Sathe, M. J.; Joshi, J. B.**	**Accelerated Carbonation of Stainless Steel Slag via Two-Stage Aqueous Carbon Mineral Capture Technology**	**Simone, Laura; Park, Ah-Hyung Alissa; Polettini, Alessandra; Pomi, Raffaella**
11.00-11.30	Coffee break					
11.30-11.50	**Motion of Single Ellipsoidal Bubble in Co-Current and Counter-Current Shear Flow: Experiments and CFD**	**Kulkarni, Amol Arvindrao**	**Numerical investigation of the drag closure for bubbles in bubble swarms**	**Lau, Yuk Man; Deen, Niels; Kuipers, Hans**	**Gas-liquid interface instabilities in porous beds and their role in the unexpected release of gas from blast furnace tapholes**	**Evans, Geoffrey Michael; He, Qinglin; Zulli, Paul; Tenzil, Francis**
11.50-12.10	**Solid Suspension and Dispersion in Moderate to Dense Liquid-Solid Mixing**	**Jafari, Rouzbeh; Chaouki, Jamal; Tanguy, Philippe**	**Explicit Lattice-Boltzmann Approach in Simulation of Multiphase Flow with High Density Ratios in Structured Packings**	**Kamali, M.R.; Gillissen, J.J.J.; Sundaresan, S.; van den Akker, H.E.A.**	**Gas-Liquid-Solid Reactors for Environment Protection: Remediation of Phenolic Wastewaters by Advanced Oxidation Processes (AOPs) at Ambient Conditions**	**Martins, Rui C.; Quinta-Ferreira, Rosa M.**

12.10-12.30	Investigation of flow structures and transport phenomena in bubble columns using particle image velocimetry and miniature pressure sensors	Sathe, M J; Mathpati, C S; Joshi, J B	CFD ANALYSIS OF ENERGY AND PHASE SEPARATION IN RANQUE-HILSCH VORTEX TUBE AT CRYOGENIC TEMPERATURE	Bandyopadhyay, Syamalendu S.; Dutta, Tanmay; Sinhamahapatra, Kalyan P.	Environmental Heterogeneous Fenton using ceria based solid catalysts: effect of the calcination temperature in the process efficiency.	Rossi, André F.; Martins, Rui C.; Amaral-Silva, Nuno; Quinta-Ferreira, Rosa M.
12.30-14.00	Lunch					
14.00-14.50	**Plenary Lecture - "Some aspects of bubbly flows dynamics as revealed by advanced measuring techniques combined with hybrid modeling", Alain Cartellier, LEGI (Laboratoire des Ecoulements Géophysiques et Industriels), CNRS- Grenoble University, France**					
15.00-15.20	Engineering Adhesive Biocatalytic Coatings for Microbial Microchannel Bioreactors for High Intensity Chiral Oxidations	Fidaleo, Marcello; Flickinger, Michael C.	Capture of impacting particles on a gas-liquid free surface	Evans, Geoffrey Michael; Liu, Dongmei; He, Qinglin	Kinetic model of NOx ozonation and its experimental verification	Ledakowicz, Stanislaw; Skalska, Kinga; Miller, Jacek S.
15.20-15.40	A multiscale approach for studying an anaerobic multiphase bioreactor	Zhang, Jinbai; Poncin, Souhila; Wu, Jing; Li, Huai Z	Foaming Characteristics of Industrial Amine Scrubbing Streams	Al Taweel, Adel M.; Kiest, Brian; Xue, Yan; Rafi, M. S.; Boucher, Heather; Odedra, Dilip	Vortex diode as a cavitation device for water dis-infection: Analysis of flow pattern and performance	Ranade, Vivek V.; Kulkarni, Amol A.; Gaikwad, Vikrant
15.40-16.00	DECOUPLING OF OXYGEN TRANSFER AND POWER DISSIPATION FOR THE STUDY OF THE PRODUCTION OF PRISTINAMYCINS BY STREPTOMYCES PRISTINAESPIRALIS IN SHAKING FLASKS	Nasir, Mehmood; Eric, Olmos; Jochen, Büchs; Jean-Louis, Goergen; Stéphane, Delaunay	Sensitivity Analysis of Complex Chemical Reaction Mechanisms in Unstationary Gas-Liquid Systems.	Navarro-Laboulais, Javier; Cardona, Salvador C; Gómez-Peñarrubia, Francisco; Ferre, Jesus	ABSORPTION OF CARBON DIOXIDE IN PIPERAZINE ACTIVATED CONCENTRATED AQUEOUS 2-AMINO-2-METHYL-1-PROPANOL SOLVENT	Bandyopadhyay, Syamalendu S.; Dash, Sukanta Kumar; Samanta, Arunkumar; Samanta, Amar Nath
16.00-16.20	Experimental Investigation of Uneven Mass Transfer is a Three-Impeller	Thorpe, Rex Barry; Mee, Tom; Smith, John	Residence Time Distribution Measurements in a External-loop Airlift	Essadki, Abdelhafid		

Tall Sparged CSTR	**Reactor: Study of the hydrodynamic of the liquid circulation induced by the hydrogen bubbles.**

16.20-18.30	**POSTER SESSION**

DAY THREE – 29 JUNE 2011

9.00-9.50	**Plenary Lecture - "Inventing multiphase flow systems at pilot and microreactor scales", Malcolm Mackley, Department of Chemical Engineering and Biotechnology, University of Cambridge, Cambridge, UK**				
	ROOM 1		**ROOM 2**		**ROOM 3**
10.00-10.20	**An experimental study of gas void fraction in dilute alcohol solutions in annular gap bubble columns using a four-point conductivity probe**	**Aloufi, Fahd Mahboob; Rielly, Chris D.; Cumming, Iain W.**	**Global gas/liquid/solid volumetric mass transfer coefficients in a single pellet string reactor**	**Rolland, Matthieu; Hipolito, Ana; Boyer, Christophe; de Belefon, Claude**	
10.20-10.40	**EXPERIMENTAL CARACTERIZATION OF COUNTER-CURRENT LIQUID-GAS FLOWS OVER CORRUGATED SURFACES**	**Vitry, Youen; Rouzineau, David; Meyer, Michel; Prevost, Michel**	**DYNAMIC MODELLING OF TRICKLE BED REACTOR OPERATED UNDER GAS FEED COMPOSITION MODULATION.**	**Stüber, Frank; Ayude, Maria Alejandra; Haure, Patricia; Font, Josep; Fortuny, Agusti; Bengoa, Christophe; Fabregat, Azael**	
10.40-11.00	**Experimental investigations of lift force acting on single/multiple bubbles rising in sheared liquids**	**Rabha, Swapna S.; Buwa, Vivek V.**	**MULTIPHASE FLOW DYNAMICS IN STRUCTURED PACKINGS FOR TUBE REACTORS**	**Vervloet, David; Nijenhuis, John; Van Ommen, J. Ruud; Kapteijn, Freek**	
11.00-11.30			Coffee break		
11.30-11.50	**APPLICATION OF THE RADIOACTIVE PARTICLE TRACKING TECHNIQUE TO PILOT PLANT SCALE VESSELS**	**Upadhyay, Rajesh; Pant, Harish J.; Sharma, V. K.; Roy, Shantanu**	**Reactive distillation for selectivity improvement in multiple reaction systems: An experimental and theoretical study**	**Keller, Tobias; Holtbrügge, Johannes; Górak, Andrzej**	
11.50-12.10	**Tomographic measurement of liquid hold up and gas-liquid interfacial area distributions in a column packed with Mellapak Plus 752Y**	**Aferka, Said; Viva, Aurora; Brunazzi, Elisabetta; Marchot, Pierre; Crine, Michel; Toye, Dominique**	**Effect of catalyst wettability on ON-OFF liquid flow modulation of a Trickle Bed Reactor.**	**Ayude, Maria Alejandra; Massa, Paola; Stüber, Frank; Fenoglio, Rosa; Haure, Patricia**	
12.10-12.30	**Ultrafast X-ray computed tomography of gas-solid fluidized beds**	**Bieberle, Martina; Fischer, Frank; Menz, Hans-Jürgen; Mayer, Hans-Georg; Hampel,**	**BIOPROCESS INTENSIFICATION: ENHANCED PHA PRODUCTION USING**	**Boodhoo, Kamelia; Cartwright, Craig; Cooper, Jerry**	

		Uwe	POROUS MESH IMPELLERS	
12.30-14.00			Lunch	
14.00-14.20	Local measurement of mass transfer at bubble interface by Planar Laser Induced Fluorescence	Le Bigaut, Marianne; Billet, Anne-Marie; Masbernat, Olivier	A novel method to capture mass transfer at moving fluid-fluid interfaces	Ganguli, Arijit; Kenig, Eugeny
14.20-14.40	Measurement of liquid distributions in separation columns	Schubert, M.; Hampel, U.; Kenig, E. Y.; Grünewald, M.	Heat transfer in Three - Phase(G/L/S) Circulating Fluidized Beds with Low Surface Tension Media	Lim, D. H.; Jang, J. H.; Kang, Y.; Jung, H.; Kim, S. D.
14.40-15.00	Ultrafast tomography for multiphase flow measurement in process applications	Hampel, U.; Fischer, F.; Bieberle, M.; Schubert, M.	DIRECT MEASUREMENT OF MASS TRANSFER AROUND A SINGLE BUBBLE BY MICRO-PLIF	François, Jessica; Dietrich, Nicolas; Cockx, Aarnaud
15.00-15.30			Coffee break	
15.30-15.50	New insights into gas/liquid textures in rotating solid foams	Schubert, M.; Bieberle, A.; Hampel, U.; Tschentscher, R.; Nijhuis, T. A.; van der Schaaf, J.; Schouten, J. C.	Mass transfer in a dense bubble swarm.	Colombet, Damien; Legendre, Dominique; Cockx, Arnaud; Guiraud, Pascal; Risso, Frederic; Cazin, Sebastien; Daniel, Claude; Galinat, Sophie
15.50-16.10	Evaluation of droplet size and mass flux using PDA and shadowgraphy for large scale facilities: An experimental study	Deshpande, Sagar S.	Heat Transfer in Trickle Bed Column with Constant and Modulated Feed Temperature: Experiments and Modeling	Stüber, Frank; Habtu, Nigus; Ayude, Maria Alejandra; Haure, Patricia; Font, Josep; Fortuny, Agusti; Bengoa, Christophe; Fabregat, Azael
16.10-16.30	Experimental Analysis of Local Turbulence in Bubble Column Reactors	Kulkarni, Amol Arvindrao	Patterns formation in sedimentary deposit	Kulaviak, L.; Hladil, J.; Ruzicka, M.; Drahos, J

16.30-17.00	CLOSING SESSION