

Tuesday, April 24, 2007

8h00

REGISTRATION

9h00

OPENING SESSION

Joël BERTRAND – Head of LGC (Laboratoire de Génie Chimique), Toulouse – France
Isabelle RICO-LATTES – Head of CNRS National Program " Chimie pour le Développement Durable"- France
Gilbert CASAMATTA – President of INPT (Institut National Polytechnique de Toulouse) - France

10h00

PLENARY LECTURE

Jean-Claude CHARPENTIER
 (Laboratoire des Sciences du Génie Chimique (LSGC), Nancy - France)

Chemical Engineering and Sustainable Development

10h50

COFFEE BREAK

	SESSION I CLEAN AND SUSTAINABLE TECHNOLOGIES Chairman: Jyri-Pekka MIKKOLA (Finland)	SESSION II NEW REACTION MEDIA, GREEN SOLVENTS Chairman: Michel VAULTIER (France)
11h20	<i>Polymer supported copper catalysts for aqueous phenol oxidation</i> Ursula Isabel CASTRO CEVALLOS, Frank STÜBER, Josep FONT, Azael FABREGAT, Agustí FORTUNY, Christophe BENGOA	<i>Green processes using supercritical fluids for designing multifunctional nanomaterials</i> Cyril AYMONIER, Anne LOPPINET-SERANI, François CANSELL
11h40	<i>TiO₂ mediated inactivation of bioaerosols</i> Amrita PAL , Liya E. YU, Simo O. PEHKONEN, Madhumita B. RAY	<i>Crystallization of drugs using supercritical CO₂ as antisolvent: from phase equilibria to products</i> Pascale SUBRA-PATERNAULT, Arlette VEGA-GONZALEZ, Christelle ROY, Barbara DEGIOANNIS, Patrick JESTIN
12h00	<i>Effect of carbon coating of TiO₂/Fe₃O₄ particles on their photocatalytic activity</i> Tarek GAD-ALLAH, Shigeru KATO, Toshinori KOJIMA, Shigeo SATOKAWA	<i>Cellulose oxidation in densified carbon dioxide</i> Séverine CAMY, Jean-Stéphane CONDORET, Suzelei MONTANARI, Daniel SAMAIN, Michel VIGNON
12h20	<i>Exploitation of polymer-supported Mo(VI) alkene epoxidation catalysts under reactive distillation conditions</i> Krzysztof AMBROZIAK, Basu SAHA, David SHERRINGTON, Rene MBELECK	<i>The use of RTIL as efficient solvent in olefin/paraffin separations</i> Daniel GORRI, Immaculada ORTIZ, Alicia RUIZ, Alfredo ORTIZ
12h40	<i>Supported binaphthyles for asymmetric catalysis</i> Peter HESEMANN, Joël J.E. MOREAU	<i>Easy recyclable homogeneous catalysts based on magnetic fluids</i> Pawel K. PLUCINSKI, Urszula LASKA, Christopher G. FROST, Gareth C. PRICE

13h00

LUNCH

SESSION I CLEAN AND SUSTAINABLE TECHNOLOGIES Chairman: Marie-Thérèse MAURETTE (France)		SESSION II NEW REACTION MEDIA, GREEN SOLVENTS Chairman: Jean-Stéphane CONDORET (France)	
14h00	Green chemical process technology development in Taiwan Cheng-Ching YU, Nae-Lih WU, Clifford Y. TAI, Jeffrey C. S. WU	Green technology for cellulose derivatives in ionic liquids – the effect of ultrasound Jyri-Pekka MIKKOLA, Tapio SALMI, Dmitry Yu MURZIN	
14h20	Performance of an electrochemical remediation reactor with palm shell activated carbon electrode Mohamed Kheireddine AROUA, Wan Mohd Ashri WAN DAUD, Nik Meriam SULAIMAN, Noor Faizah MOHAMAD	Green solvents used in wool cleaning processes as an alternative to chlorinated ones Rubén IRUSTA, Jesús M ^a MARTÍN, Alberto MORAL	
14h40	Eco-friendly treatment of landfill leachates by integration of electrochemical oxidation and reverse osmosis Adelaida CABEZA, Ana Maria URTIAGA, Inmaculada ORTIZ	Green biocatalytic processes in neoteric solvents Pedro LOZANO, Teresa DE DIEGO, Said GMOUH, Michel VAULTIER, José L. IBORRA	
15h00	Microwave assisted regeneration of zeolithe Isabelle POLAERT, Alain LEDOUX, Lionel ESTEL, Raphaël HUYGHE, Michel THOMAS	Thermal treatment of wood in water: energetic valorization of the solid residue and the extracts contained by the liquid phase Laurent CHRUSCIEL, André ZOULALIAN	
15h20	Partial oxidation of ion exchange resins by the fenton process for recycling purposes Monika ZAHORODNA, Romuald BOGOCZEK, Esther OLIVEROS, André BRAUN	Process intensification for ethyl acetate production from bioethanol Aline FERRÃO CUSTÓDIO, Maria Regina WOLF MACIEL, Rubens MACIEL FILHO	
15h40	BREAK, POSTER SESSION		
SESSION I CLEAN AND SUSTAINABLE TECHNOLOGIES Chairman: Pedro ROQUERO (Mexico)		SESSION III SAFETY AND RISK MANAGEMENT Chairman: Lionel ESTEL (France)	
16h20	A model for the rate of enzymatic hydrolysis of some cellulosic waste materials in heterogeneous solid-liquid systems Morteza SOHRABI, Kamyar MOVAGHARNE	Thermal consequences of process deviations for a continuous intensified reactor Wassila BENAÏSSA, Sébastien ELGUE, Michel CABASSUD, Nadine GABAS, Douglas CARSON, Michel DEMISSY	
16h40	Enzymatic deacidification of jojoba oil using esterification process Jose ARACIL, Abderrahim BOUAID, Mercedes MARTINEZ, Noelia CORTES	Identification of hazardous fractions in industrial landfill leachate Andreja ŽGAJNAR GOTVAJN, Jana ZAGORC-KONČAN	
17h00	Partial purification and characterization of polyphenol oxidase extracted from <i>Agaricus bisporus</i> Hicham GOUZI, William H. FLURKEY, Abdelhafid BENMANSOUR		
18h30	OFFICIAL WELCOME CEREMONY, CAPITOLE		

Wednesday, April 25, 2007

9h00

PLENARY LECTURE

Claudio Augusto OLLER NASCIMENTO

(Departamento de Engenharia Química Escola Politécnica da Universidade de São Paulo - Brazil)

Wastewater treatment by photochemical process. Industrial case-studies

09h50

TANDEM LECTURE

Andrzej STANKIEWICZ (Delft University of Technology, Process & Energy Laboratory, Delft – The Netherlands)

Christophe GOURDON (Laboratoire de Génie Chimique, Toulouse - France)

Intensification for Green Process Design

10h40

COFFEE BREAK, POSTER SESSION

SESSION I

CLEAN AND SUSTAINABLE TECHNOLOGIES

Chairman : Cristina LEONELLI (Italy)

SESSION IV

INNOVATIVE PROCESS DESIGN

Chairman : Corinne CABASSUD (France)

11h20

Sustainable materials processing using geopolymerisation: a progress report on reaction mechanisms and commercialisation

Jannie VAN DEVENTER, Peter DUXSON, John PROVIS, Grant LUKEY

Nitrogen and carbon removal in a membrane bioreactor working in sequenced aeration: application to Chinese wastewater treatment

Christelle WISNIEWSKI, Laurence POTTIER, Xu-Dong LI, Alain GRASMICK, zhou GI

11h40

Cleaning optimisation for a sustainable skim milk concentration by spiral membrane ultrafiltration

Murielle RABILLER-BAUDRY, Lydie PAUGAM, David DELAUNAY

Microwave assisted chemical vapour infiltration for the production of ceramic matrix composites

Béatrice CIONI, Eléna ORIGGI, Andréa LAZZERI

12h00

Green electrode materials for supercapacitor applications

Nae-Lih WU

Solid-liquid two phase partitioning bioreactors for enhanced biotransformation of organic molecules

Andrew J. DAUGULIS, George P. PRPICH

12h20

Microstructured clean process design: application for VOC treatment

Neila MHIRI, Hubert MONNIER, Laurent FALK

Complete integration of solvent recycling in large scale chromatography processes

Jean BLEHAUT

12h40

Atmospheric plasma processes by DBD discharge for highly diluted gaseous effluent treatment: experimental results and modelling

Laure MARTIN, Stephanie OGNIER, Simeon CAVADIAS, Jacques AMOUROUX, Joseph YOUSSEF

Production of sludge in a submerged membrane bioreactor and dewatering aspects

Christelle WISNIEWSKI, Laurence POTTIER, Watsa KHONGNAKORN, Marc HERAN

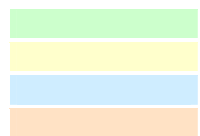
13h00

LUNCH

SESSION I CLEAN AND SUSTAINABLE TECHNOLOGIES Chairman : Pedro LOZANO (Spain)		SESSION IV INNOVATIVE PROCESS DESIGN Chairman : Claudio Augusto OLLER NASCIMENTO (Brazil)	
14h00	<i>CO₂ recycling on Preparative Supercritical Fluid chromatography equipment</i> François ROMELAER	<i>Analysing the process parameters impacts on kefir grains increase, using Taguchi experimental design</i> Andreja GORSEK, Marko TRAMŠEK	
14h20	<i>Photo converting CO₂ to renewable energy using an optical-fiber photoreactor</i> Jeffrey C. S. WU, Tzu-Hua WU, Taichi CHU, Hungji HUANG, Dingping TSAI, Chwei-Huan CHIOU	<i>Greening a process by using NLP model optimization</i> Anita KOVAČ KRALJ, Peter GLAVIČ	
14h40	<i>Carbon Dioxide Capture by Blended Alkanolamines in Rotating Packed Bed</i> Chung-Sung TAN, Hsu-Hsiang CHENG	<i>Ecodesign of batch processes: optimal design strategies for economic and ecological bioprocesses</i> Catherine AZZARO-PANTEL, Adrian DIETZ, Luc PIBOULEAU, Serge DOMENECH	
15h00	<i>Rational cement consumption by improving concrete manufacturing process</i> Bogdan CAZACLIU, Anne VENTURA	<i>Simulation, case studies and optimization of a biodiesel process with a solid acid catalyst</i> Naoko ELLIS, Dusko POSARAC, Alex WEST	
15h20	<i>Bio-catalysis in textile finishing</i> Vera PAIVA, José MORGADO	<i>Emission zero recovery of sulphur dioxide using non-dispersive absorption</i> Angel IRABIEN, Immaculada ORTIZ, Patricia LUIS, Ruben ALDACO, Aurora GAREA	
15h40	BREAK, POSTER SESSION		
SESSION I CLEAN AND SUSTAINABLE TECHNOLOGIES Chairman : Farid CHEMAT (France)		SESSION IV INNOVATIVE PROCESS DESIGN Chairman : Franco BERRUTI (Canada)	
16h20	<i>Power ultrasound in the formulation of dispersed systems</i> Jean-Paul CANSÉLIER	<i>Green fuel synthesis via reactive distillation</i> Aurora VIVA, Elisabetta BRUNAZZI, Marco DI STANISLAO, Alberto MALANDRINO, Renata PATRINI	
16h40	<i>Degradation of Oxalic acid in aqueous solution by sonication or by Catalytic Wet Air oxidation</i> Meral DÜKKANCI, Gönül GÜNDÜZ, Erol GÜNDÜZ	<i>Mass transfer in rotating packed bed - End effect and packings</i> Hwai-Shen LIU, Yu Shao CHEN	
17h00	<i>Treatment of phenol-containing wastewater by solar photochemical processes</i> Antonio Carlos S. C. TEIXEIRA, Katia R. B. NOGUEIRA, Roberto GUARDANI, Claudio A. OLLER NASCIMENTO	<i>Modeling and simulation of multicomponent reactive distillation</i> Suranani SRINATH, S.V. Kanthi KIRAN, Venkat Goli REDDY	
17h20	<i>Kinetic study on sonochemical reaction for destruction of environmental pollutants</i> Yasuhiko TAKUMA, Shigeru KATO, Toshinori KOJIMA	<i>Non-conventional heterogeneous batch distillation process for separating an organic waste mixture</i> Ivonne RODRIGUEZ DONIS, Romuald VAN KAAM, Yanira LABRADA FERNANDEZ, Jhoany ACOSTA ESQUIJAROSA, Vincent GERBAUD	
17h40		<i>Production of carbonaceous adsorbent from used tires: optimization of the activation process</i> Fanny HOURLIER, Catherine FAUR, Laurence LE COQ, Pierre LE CLOIREC	

19h30

GALA DINNER – MEDIATHEQUE TOULOUSE



Lecture Hall

Lecture Hall

Room 1

Room 2

Thursday, April 26, 2007

9h00	PLENARY LECTURE	
	Cédric BRIENS (Department of Chemical Engineering, University of Western Ontario, London, Ontario - Canada)	
	<i>Biomass Valorization for Fuel and Chemicals production</i>	
09h50	PLENARY LECTURE	
	Michel VAULTIER (Laboratoire de Synthèse et ElectroSynthèse Organiques, Rennes - France)	
	<i>Task Specific Onium Salts and Ionic Liquids: New Soluble Supports for Organic Synthesis</i>	
10h40	COFFEE BREAK, POSTER SESSION	
	SESSION V BIOMASS PYROLYSIS AND GASIFICATION Chairman: Gérard ANTONINI (France)	SESSION IV INNOVATIVE PROCESS DESIGN Chairman: Manfred KRAUT (Germany)
11h20	<i>Synthesis and characterization of carbon-supported platinum-molybdenum and platinum-tungsten catalysts</i> Pedro ROQUERO, Luis Carlos ORDOÑEZ, Omar HERRERA, Orlando UGALDE, Jorge RAMÍREZ	<i>Silicon carbide equipments for Process Intensification : first steps of an innovation</i> Marc FERRATO, Sébastien ELGUE, Marie MOMAS, Patrick CHEREAU, Laurent PRAT, Christophe GOURDON, Pierre DENY
11h40	<i>Mass and Heat Transfer Characteristics of a New Annular Pyrolysis Reactor</i> Michael JACOBSON, Cédric BRIENS, Franco BERRUTI	<i>Selective oxidation of benzyl alcohol in a pilot scale multichannel reactor</i> Stan KOLACZKOWSKI, Pawel PLUCINSKI, Alexei LAPKIN
12h00	<i>Hydrogen production by catalytic steam reforming of model compounds of bio-oil</i> Fernando BIMBELA, Jesus ARAUZO, Mirian OLIVA, Joaquin RUIZ, Lucia GARCIA	<i>Scale-up of process intensifying falling film micro reactor to pilot production scale</i> Bhanu Kiran VANKAYALA, Patrick LÖB, Daniel METZKE, Volker HESSEL, Gabriele MENGES, Christian HOFMANN, Hans Joachim KOST, Ulrich KRTSCHIL
12h20	<i>Characterization of the reactive system involved in the high temperature treatment of tar and gas coming from biomass pyrolysis</i> Francoise NOZAHIC, Xuan Mi MEYER, Meryl BROTHIER, Xavier JOULIA, Christian LATGE	<i>Ionic liquid synthesis in continuous micro reactor using a multi-scale approach</i> Patrick LÖB, V. HESSEL, M. BALON-BURGER, Y. HANG, U. KRTSCHIL, T. ILLG, M. UERDINGEN
12h40	<i>Influence of the non-stationary period on the results obtained in air gasification of dried sewage sludge in a fluidized bed</i> Maria AZNAR, Angel E. GONZALEZ, Joan J. MANYA, Jos L. SANCHEZ, Mar A Benita MURILLO	<i>Thermal management of a multifunctional heat exchanger with catalytic reaction</i> Auréliе GUICHARD , Patrick COGNET, Christophe GOURDON, Hassan PEERHOSSAINI, Patrice TOCHON
13h00	LUNCH	

SESSION V BIOMASS PYROLYSIS AND GASIFICATION Chairman: Stan KOLACZKOWSKI (United Kingdom)		SESSION IV INNOVATIVE PROCESS DESIGN Chairman: Laurent FALK (France)	
14h00	Novel fluid bed pilot plant for the production of bio-oil from biomass through fast pyrolysis Franco BERRUTI, Federico BERRUTI, Samuel NOVA, Karen LENKIEWICZ, Ran XU, Rohan BEDMUTHA, Cédric BRIENS	Microreaction system for organic synthesis Asterios GAVRILLIDIS, Enhong CAO, William MOTHERWELL	
14h20	Catalytic incineration of volatile organic compounds in packed bed and fluidized bed Sarooha ANIL KUMAR, Kanthi VARMA, Guha BARUN KUMAR	CO₂ capture by hydrate crystallisation - Experimental results, simulation and economical evaluation Jean-Michel HERRI, Duc NGUYEN HONG, Fabien CHAUVY	
14h40	Dilute acid hydrolysis of grass using phosphoric acid in a microwave reactor Mohammad AHMAD, Angela OROZCO, G. WALTER, D. ROONEY	Solvent selection evaluation at an early stage design in "green" pharmaceutical process Samuel PEREZ, Paul SHARRATT	
15h00	Kinetic study of char steam gasification Frédéric PAVIET, Olivier BALS, Gérard ANTONINI, Stéphanie DELECOURT	New trends for design towards sustainability in chemical engineering: green engineering Juan GARCÍA-SERNA, Maria José COCERO	
15h20	Membrane Reactor Based Hydrogen Separation From Biomass Gas - Review of Technical Advancements and Prospects R. J. Byron SMITH, Murthy S. SHEKHAR	Life cycle assessment as a tool for cleaner production: application to aluminium trifluoride Angel IRABIEN, Ruben ALDACO, Antonio DOMÍNGUEZ	

15h40

BREAK

SESSION VI : ROUND TABLE NEW TOOLS FOR GREEN CHEMICAL ENGINEERING EDUCATION Chairman: Juan GARCIA SERNA (Spain)		SESSION IV INNOVATIVE PROCESS DESIGN Chairman: Laurent FALK (France)	
16h00	Green chemical processing in the teaching laboratory: a convenient solvent free microwave extraction Farid CHEMAT, Mohamed Amine FERHAT, Brahim Y. MEKLATI, Giulio COLNAGUI, Franco VISINONI	Flow pulsation and modified duct surface for process heat transfer intensification Bolaji OLAYIWOLA, Peter WALZEL	
16h10	Optibatch: a software for green chemical engineering education Nathalie DI MICELI, Laurent PRAT, Patrick COGNET, Michel CABASSUD		
16h20	Discussion	Modelling a three-phase fluidized bed bioreactor for wastewater treatment Khedidja ALLIA, Leila TOUMI	

16h40

CONCLUDING REMARKS

17h00

END OF CONFERENCE