



12th WORLD CONGRESS ON ANAEROBIC DIGESTION

OCTOBER 31st – NOVEMBER 4th, 2010
GUADALAJARA, JALISCO – MEXICO



Specialist
Conferences

SCIENTIFIC PROGRAM AD 12 Guadalajara 2010

SUNDAY 31st OCTOBER 2010		
16:00-20:00		Registration
18:00-20:00		Welcome reception
MONDAY 1st NOVEMBER 2010		
08:00-18:00		Registration
9:00-9:30		Opening Ceremony (welcome remarks)
		Prof. Adalberto Noyola
		Chair of the AD12 Organizing committee
		Prof. Damien Batstone
		Chair of the Anaerobic Digestion Specialist Group IWA
		Mexican Authority (to be confirmed)
9:30-10:15		Plenary session Towards High-Efficiency Energy-Producing Wastewater Treatment
		Prof. Perry McCarty (UNITED STATES)
10:15-10:45		Coffee Break/Poster Exhibition

10:45-12:25		First parallel sessions						
Session A1.1: Industrial wastewater treatment			Session B1.1: AD of solid waste		Session C1.1: Microbial fuel cells		Session D1.1: Sewage treatment	
Pavel Jenicek			Mario T. Kato		Willy Verstraete		Grietje Zeeman	
10:45-11:05	IWA-5056	Anaerobic biofilm processes: a review of 15 years of research. <u>Nicolas Bernet</u> , Renaud Escudie, Frédéric Habouzit, Jean-Philippe Steyer, (FRANCE)	IWA-4782	Anaerobic digestion in dry conditions: Influence of the moisture content on the specific methanogenic activity. Baptiste Laubie, <u>Pierre Buffiere</u> , Hassen Benbelkacem, Rémy Bayard, (FRANCE)	IWA-4780	Submersible Microbial Fuel Cell for Electricity Production from Sewage Sludge. <u>Yifeng Zhang</u> , Lola González Olias, Prawit Konjgan, Irini Angelidaki, (DENMARK)	IWA-5008	Anaerobic municipal wastewater treatment - Energy potential and Greenhouse Gas Emissions. <u>Linda Hinken</u> , Ingo Urban, Dirk Weichgrebe, Karl-Heinz Rosenwinkel, (GERMANY)

11:05-11:25	IWA-4968	Effect of Agitation on the Performance of an Anaerobic Sequencing Batch Biofilm Reactor in the Treatment of Dairy Effluents. Thais Z. Penteado, Roberta S. S. Santana, André L. B. Dibiasi, Samantha C. de Pinho, Rogers Ribeiro, <u>Giovana Tommaso</u> , (BRAZIL)	IWA-4914	Fermentation of Lignocellulosic Biomass Derived Sugars to L-Lactate by Thermophilic Bacillus coagulants. <u>Satoshi Akao</u> , Yusuke Sakae, Yoshihiko Hosoi, Hideaki Nagare, Morihiro Maeda, Taku Fujiwara, (JAPAN)	IWA-4958	Removal of recalcitrant organic pollutants from wastewater in a bioelectrochemical system. Yang Mu, Jinyou Shen, Rene Rozendal, Korneel Rabaey, <u>Jurg Keller</u> , (AUSTRALIA)	IWA-5096	Methane and hydrogen sulfide emissions in UASB reactors treating domestic wastewater. Cláudio L. Souza, <u>Carlos Chernicharo</u> , Gilberto C. Melo, (BRAZIL)
11:25-11:45	IWA-4927	Anaerobic Fixed-bed Reactors with Small Buoyant Supports: Influence of Media Design on Biomass Retention, Fluidization and Reactor Performance. <u>Rangaraj Ganesh</u> , Philippe Sousbie, Renaud Escudie, Joseph V. Thanikal, Michel Torrijos, Jean Philippe Steyer, (FRANCE)	IWA-4874	Biochemical methane potential (BMP) of solid organic materials: results obtained from an international interlaboratory study. <u>Francisco Raposo</u> , Victoria Fernández-Cegri, M.A. de la Rubia, Rafael Borja, Fabrice Beline, Cristina Cavinato, Goksel Demirer, Belén Fernández, Jean-Claude Frigon, Jana Koubova, Ramón Méndez, Glauco Menin, Andy Peene, Paul Scherer, Michel Torrijos, Vinnie de Wilde, (SPAIN)	IWA-4961	Bioelectrochemical Nitrogen and COD removal from Synthetic Wastewater. <u>Bernardino Virdis</u> , Korneel Rabaey, Rene A. Rozendal, Jurg Keller, (AUSTRALIA)	IWA-4778	Recovery of methane from anaerobic process effluent using poly-di-methyl-siloxane membrane contactors. <u>Joanna Cookney</u> , Ewan J. McAdam, Elise Cartmell, Bruce Jefferson, (UNITED KINGDOM)
11:45-12:05	IWA-5098	Industrial wastewater treatment by on-site pilot static granular bed reactor (SGBR) Jaeyoung Park, Jin Hwan Oh, Eric A. Evans, Michael F. Lally, Keith L. Hobson, Timothy Ellis (UNITED STATES)	IWA-5085	Biogas Potential from the Anaerobic Digestion of Papaya Waste (Carica papaya) Using Different Bio-Additives. <u>Nelson Caballero-Arzápalo</u> , Cinthia C. Gamboa-Loira, Roland Meyer- Pittroff (MEXICO)	IWA-4998	Oxalate degradation in a bioelectrochemical system. <u>August Bonmati</u> , Yang Mu, René Rozendal, Jürg Keller, Korneel Rabaey (SPAIN)	IWA-4920	Quantification of dissolved methane in UASB reactors treating domestic wastewater under different operating conditions. Claudio L. Souza, Carlos Chernicharo, <u>Sergio F. Aquino</u> (BRAZIL)
12:05-12:25	IWA-4804	Anaerobic Flat Sheet Membrane Bioreactor Treating Food Processing Wastewater: Pilot-Scale Performance. <u>Kripa Shankar Singh</u> , Daryl Burke, Candidate, Shannon R. Grant, (CANADA)	IWA-4871	Methods for assessing biological reactivity of solid organic waste before and after solid state anaerobic digestion. Remy Bayard, Lorena González-Ramírez, Jérémy Guendouz, Hassen Benbelkacem, <u>Pierre Buffière</u> , (FRANCE)	IWA-5022	Development of a Continuously Operated Upflow Microbial Desalination Cell for Efficient Salt Removal. Kyle S. Jacobson, David Drew, <u>Zhen He</u> , (UNITED STATES)	IWA-4921	Low temperature (12°C) anaerobic treatment of sewage. <u>Dermot Hughes</u> , Olivia Kelly, Gavin Collins, Vincent O'Flaherty (IRELAND)

12:25-13:30		Lunch/Poster Exhibition						
13:30-15:20		Second parallel sessions						
Session A1.2: Industrial wastewater treatment Henri Spanjers			Session B1.2: AD of solid waste Joan Mata Álvarez		Session C1.2: Full Scale James Field		Session D1.2: Sewage treatment Carlos Chernicharo	
13:30-13:50	IWA-4984	Slaughterhouse wastewater treatment in a UASB reactor with intermittent upflowal presentation. Marco A. Garzón-Zúñiga, Violeta E. Escalante-Estrada, (MEXICO)	IWA-4788	Degradation characteristics of polylactide in thermophilic anaerobic digestion with hyperthermophilic solubilization phase. <u>Feng Wang</u> , Takumi Oishi, Taira Hidaka, Shojiro Osumi, Jun Tsubota, Hiroshi Tsuno, (JAPAN)	IWA-5032	Resource recovery from source separated domestic waste(water) streams, full scale results. <u>Grietje Zeeman</u> , Katarzyna Kujawa, (NETHERLANDS)	IWA-5068	Influence of hydraulic retention time on anaerobic membrane bioreactor performance and fouling. <u>Mónica Liliana Salazar</u> , Juan Manuel Morgan-Sagastume, Adalberto Noyola, (MEXICO)
13:50-14:10	IWA-5094	Performance parameters of an Anaerobic Hybrid Reactor treating slaughterhouse wastewater. Saioa Soroa, Gómez Jairo, <u>Jaime L. García-Heras</u> ,(SPAIN)	IWA-4884	Two-phase thermophilic anaerobic digestion process for biohythane production treating biowaste. <u>Cristina Cavinato</u> , David Bolzonella, Francesco Fatone, Franco Cecchi, Paolo Pavan, (ITALY)	IWA-4982	Engineering and Operational Flaws in UASB Reactors Treating Municipal Sewage. Jeroen van der Lubbe, <u>Barry Heffernan</u> , Jules B. van Lier, (NETHERLANDS)	IWA-4870	The effect of operational conditions on the hydrodynamic characteristics of the sludge bed in UASB reactors. <u>Renato Carrha Leitao</u> , Sandra T. Santaella, Adrianus C. van Haandel, Grietje Zeeman, Gatzte Lettinga, (BRAZIL)
14:10-14:30	IWA-4906	Treatment of slaughterhouse wastewater in upflow anaerobic sludge blanket reactor. Petia Mijaylova, Marlé Reyes Pantoja, <u>Erika Lomelí Serrano</u> , (MEXICO)	IWA-4879	Bound water measurement in dry anaerobic digesters. Diana García-Bernet, Jean-Philippe Steyer, Renaud Escudie, (FRANCE)	IWA-5084	Development and technical experience with fluidized bed reactors for anaerobic waste water treatment in the sugar industry. <u>Hans-Joachim Jördening</u> , (GERMANY)	IWA-5123	Enhancement of an UASB-septic tank performance for decentralised treatment of strong domestic sewage. Nidal Mahmoud, (PALESTINIAN TERRITORY, OCCUPIED)
14:30-14:50	IWA-4934	Combined Anaerobic and Activated Sludge Anoxic/Oxic Treatment for Piggery wastewater. Rajinikanth Rajagopal, Pierre Rousseau, Nicolas Bernet, <u>Fabrice Béline</u> , (FRANCIA)	IWA-4978	Difference in acid fermentation products under different microbial composition in thermophilic kitchen garbage treatment. <u>Taira Hidaka</u> , Teruaki Asahira, Jihoon Cheon, Yongjin Park, Hiroshi Tsuno, (JAPAN)	IWA-5026	The First Two Years of Full-Scale Anaerobic Membrane Bioreactor (AnMBR) Operation Treating High-Strength Industrial Wastewater. <u>Scott Christian</u> , Shannon Grant, Peter McCarthy, Dwain Wilson, Dale Mills, (CANADA)	IWA-4935	Full-scale Experience of Integrated Anaerobic Aerobic Treatment of Domestic Sewage with the UBOX Reactor. <u>Peter Yspeert</u> , Paulo R. de Lamo, Elias T. Matsuo, Sjoerd Vellinga, (NETHERLANDS)

14:50-15:20	IWA-4898	Methods for stabilization of pH during anaerobic digestion of vinasse: preliminary results obtained with urea dosing. <u>Edinéia L. Formagini</u> , Luciene S. Santos, Paula L. Paulo, Marc Arpad Boncz, (BRAZIL)	IWA-5028	Temperature effects on the trophic stages of perennial rye grass anaerobic digestion. <u>Denise Cysneiros</u> , Anne Thuillier, Romain Villemont, Alyssa Littlestone, Therese Mahony, Vincent O'Flaherty, (IRELAND)	IWA-5019	Full scale application of anaerobic digestion of slaughterhouse wastes - long term experiences and resulting strategies. <u>Roland Kirchmayr</u> , Christoph Resch, Christian Maier, Markus Ortner, Rudolf Braun, Rudolf Großfurtner, (AUSTRIA)	IWA-4789	Evaluation of sludge properties in a pilot scale UASB reactor for sewage treatment in temperate region. <u>Kazuaki Syutsubo</u> , Wilasinee Yoochatchaval, Ikuo Tsushima, Nobuo Araki, Keiichi Kubota, Takashi Onodera, Masanobu Takahashi, Takashi Yamaguchi, Yutaka Yoneyama, (JAPAN)
15:20-16:00		Coffee Break/Poster Exhibition						
16:00-17:40 Third parallel sessions								
Session A1.3: Industrial wastewater treatment Juan M. Lema			Session B1.3: AD of solid waste Iriní Angelidaki		Session C1.3: Full Scale/AD modeling Jean Phillippe Steyer		Session D1.3: Sewage treatment/Gas production and utilization David Jeison	
16:00-16:20	IWA-5024	Textile effluent treatment in a UASB reactor followed by a submerged aerated biofilter. Ferraz Júnior Antonio Djalma Neto, Mario T. Kato, Lourdinha Florêncio, <u>Sávia Gavazza</u> , (BRAZIL)	IWA-5097	Influence of particle size and temperature on methane production from Figueã's bagasse. <u>Liliana Castro</u> , Mabel Quintero, Alex Velásquez, Claudia Ortiz, Carolina Guzmán, Humberto Escalante, (COLOMBIA)	IWA-4945	Hydraulic Retention Time and Stirring in Biogas Plant Digesters. <u>Ludek Kamarad</u> , Stefan Pohn, Michael Harasek, Guenther Bochmann, Roland Kirchmayr, Rudolf Braun, (AUSTRIA)	IWA-5031	Biogas Production from Surplus Brewery Yeast and Spent Brewery Grain in a Conventional UASB Reactor. <u>Gregor D. Zupančič</u> , Matej Stražišar, (SLOVENIA)
16:20-16:40	IWA-4960	Treatment of a synthetic dye wastewater using combinations of anaerobic-aerobic biological and physico-chemical processes: Comparison of five different treatment strategies. Debraj Bhattacharyya, Michelle M. LeBlanc, Poly R. Modak, <u>Kripa S. Singh</u> , Dennis A. Connor, (CANADA)	IWA-4799	Influence of thermal pre-treatment to increase digestibility of brewers' spent grains. <u>Günther Bochmann</u> , Markus Ortner, Bernhard Drosch, Martin Schönlieb, Silvia Andres-Lainez, Roland Kirchmayr, Rudolf Braun, (AUSTRIA)	IWA-4805	Modelling Thermophilic Methanol and Cellulose Methanization Based on Microbial Ecology, Chemical Reactions and Isotope Enrichment in Products. <u>Vasily Vavilin</u> , Tianlun Li, Olivie Chapleur, Laurent Mazeas, Theodore Bouchez, (RUSSIAN FEDERATION)	IWA-4911	Microaerobic treatment of H2S in biogas: Removal capacity and optimal oxygen rate. <u>Israel Díaz</u> , Alexandre C. Lopes, Sara I. Pérez, María Fernández-Polanco, (SPAIN)
16:40-17:00	IWA-5066	Anaerobic digestion of OMW: Intermittent feeding strategy and LCFA oxidation profile. <u>Marta Ramos Gonçalves</u> , José C. Costa, Isabel P. Marques, Madalena Alves, (PORTUGAL)	IWA-5018	Optimization of hydrolysis solubilisation rate in a codigestion reactor. <u>E. Houbbron</u> , Gloria Inés González López, (MEXICO)	IWA-5062	Modeling of Relationship between Microbial Community Structure and Anaerobic Batch Reactor Performance of WAS. Ivan Ramírez, <u>Alexis Mottet</u> , Jean Phillippe Steyer, Stephano Déleris, Fabien Vendrenne, Helene Cerrere, (COLOMBIA)	IWA-5054	Denitrification of domestic sewage anaerobic effluent with biogas: preliminary results. <u>Jorge Luis Rodrigues Pantoja Filho</u> , Eugenio Foresti, (BRAZIL)
17:00-17:20	IWA-4985	Characteristic of Anaerobic Degradation of Palm Oil Mill Effluent (POME) <u>Wilasinee Yoochatchaval</u> , S. Kumakura, D. Tanikawa, T. Yamaguchi, Yunus M.F.M, Chen S.S., K. Kubota, H. Harada, K. Syutsubo,(THAILAND)	IWA-4798	Effects of Mixture Ratio on Anaerobic Co-digestion with Fruit and Vegetable Waste (FVW) and Food Waste (FW) Jia Lin, <u>Jiane Zuo</u> , Kaijun Wang, Lili Gan, Peng Li, Fenglin Liu, Lei Chen, Hainan Gan, (CHINA)	IWA-5071	Modeling of an EGSB treating sugarcane vinasse using first order kinetics with variable coefficients. Iván López, <u>Liliana Borzacconi</u> , (URUGUAY)	IWA-4900	Metal analysis in anaerobic digester sludge - a preliminary investigation. Jimmy Roussel, Farryad Ishaq, Joanna Renshaw, Chris Buckley, <u>Cynthia Carliell-Marquet</u> , (UNITED KINGDOM)

17:20-17:40	IWA-5137	Influence of temperature on microbial population on an anaerobic sequencing batch reactor (ASBR) treating easily degradable substrate. <u>Francisca Rosenkranz</u> , Fabio Carrera, Marta Morán, Vinka Oyanedel, Gonzalo Ruiz- Filippi, Rolando Chamý. (CHILE)	IWA-4878	Methanogenic metabolic pathways and microbial population dynamic during municipal solid waste anaerobic digestion as reveled by stable isotope monitoring and fluorescent in situ hybridization. <u>Julien Grossin-Debattista</u> , Xian Qu, Intissar Liman, Jonathan Epissard, Angeline Guenne, M. Lemunier, H. Budzinski, P.J. He, T. Bouchez, Laurent Mazeas, (FRANCE)	IWA-4899	A Three Phase Anaerobic Digestion Model. Chris Brouckaert, <u>David Ikumi</u> , George Ekama, (SOUTH AFRICA)	IWA-4923	Full-scale Experience with THIOPAQ Technology. An Elegant Way to Desulphurize Biogas. <u>Erik van Zessen</u> , (NETHERLANDS)
17:40-18:30		Poster Exhibition						
TUESDAY 2nd NOVEMBER 2010								
9:00-10:00		Plenary session						
		Current research and contributions of Latin America on anaerobic digestion Prof. E. Foresti (BRAZIL)						
10:00-10:45		Coffee Break/Poster Exhibition						
10:45-12:25		First parallel sessions						
Session A2.1: Industrial wastewater treatment/Sulfate-sulfide conversion		Session B2.1: AD of solid waste		Session C2.1: AD modeling		Session D2.1: Gas production and utilization/Growth mode		
David Stuckey		Oscar Monroy		Damien Batstone		Zhen He		
10:45-11:05	IWA-4889	Anaerobic treatment of a medium strength industrial wastewater at low-temperature and short hydraulic retention time: A pilot-scale experience. <u>Mario Esparza-Soto</u> , Carlos Solis Morelos, Juan J. Hernández-Torres. (MEXICO)	IWA-5011	State of the art of anaerobic digestion in Europe. Bruno Mattheeuws, <u>Luc De Baere</u> , Filip Velghe, (BELGIUM)	IWA-4868	Homoacetogenic Acetate Utilization in Two-Phase (Acid-Methane)Anaerobic Digesters. <u>Toshio Shimada</u> , Eberhard Morgenroth, Madan Tandukar, Spyros Pavlostathis, Adam Smith, Lutgarde Raskin, Rodolfo E. Kilian, (UNITED STATES)	IWA-4941	The necessity of trace element supplementation for stable operation of wheat stillage fed biogas tank reactors. <u>Jenny Gustavsson</u> , Bo H. Svensson, Anna Karlsson, (SWEDEN)
11:05-11:25	IWA-4796	Assessment of a UASB Reactor for Removal of Sulfate from Acid Mine Waters. <u>Renata Piacentini Rodriguez</u> , Guilherme D. Oliveira, Isabela M. Raimundo, Marcelo Zaiat, (BRAZIL)	IWA-4995	Continuous Anaerobic Digestion Process of Food Waste in the Sludge Circulation Process. <u>Norio Nagao</u> , Nobuaki Tajima, Chiaki Niwa, Tatsuki Toda, (JAPAN)	IWA-4932	Prediction of a Sequential UASBR System's Effluent Parameters with ANN for Elevated Organic Loading of Dairy Wastewater Treatment. <u>Dilek Erdirencelebi</u> , Gulay Tezel, (TURKEY)	IWA-4807	Optimized internal energy supply of a slaughterhouse by the enhanced use of biogas from waste materials. <u>Reinhold Waltenberger</u> , Tobias Pröll, Alexander Schumergruber, Roland Kirchmayr, Rudolf Braun, Guenther Bochmann, (AUSTRIA)
11:25-11:45	IWA-5029	Sulfide Biogenesis in Produced Water under Different Nitrate-Reducing Bacteria and Sulfate-Reducing Bacteria Concentrations. Kally A. Sousa, <u>Eliana Flavia C. Sérvulo</u> , Magali Christe Cammarota, (BRAZIL)	IWA-5134	Anaerobic monodigestion of poultry manure, effective alternative against codigestion: determination of operation parameters for CSTR. Rolando Chamý, Caroline León, Elba Vivanco, Paola Poirrier, <u>Carlos Ramos</u> , (CHILE)	IWA-5047	Interval observer for a continuous UASB reactor. <u>Martinez-Sibaja Albino</u> , Alvarado-Lassman Alejandro, Astorga-Zaragoza M. Carlos, Mendez Contreras M. Juan, Adam-Medina Manuel, Posada-Gómez Ruben, (MEXICO)	IWA-4947	The impact of metal transport processes on metal bioavailability in methanogenic granular sludge. <u>Jan Bartacek</u> , Fernando G. Fermo, Frank Vergeldt, Edo Gerkema, Josef Maca, Henk Van As, Piet N. Lens, (NETHERLANDS)

11:45-12:05	IWA-4940	Comparison of microbial activity in anaerobic and microaerobic digesters. <u>Pavel Jenicek</u> , Crispin Celis, Jana Koubova, Dana Pokorna, (CZECH REPUBLIC)	IWA-5135	Anaerobic digestion of slaughterhouse solid waste in order to maximize the production of biogas. <u>Adrián Rodríguez</u> , (MEXICO)	IWA-4903	Comparison of different conditions, substrates and operation modes by dynamic simulation of a full-scale anaerobic SBR plant. Sabine Gabriele Elsbeth Roenner-Holm, <u>Agnieszka Zak</u> , Niels Holm, (GERMANY)	IWA-5000	Influence of support material properties on the adhesion and growth as a biofilm of a methanogenic consortium. <u>Frédéric Habouzit</u> , G��lle Gevaudan, J��r��me Hamelin, Jean-Philippe Steyer, Nicolas Bernet, (FRANCE)
12:05-12:25	IWA-5092	The redox potential as the limiting factor to carry out a combined sulfate-reducing / sulfide-oxidizing process in a single SBR. <u>Francisco J. Torner-Morales</u> , Germ��n Buitron, (MEXICO)	IWA-5058	Wheat straw milling effect on biogas production. Claire Dumas, Gabriela Ghizzi Damasceno da Silva, Xavier Rouau, <u>Jean-Philippe Steyer</u> , (FRANCE)	IWA-5060	A new methodology to calibrate the disintegration/hydrolysis step of the ADM1 for sewage sludge. <u>Enrique Aymerich</u> , Igotz Barrena, Alaitz Etxeberria, Jaime L. Garc��a-Heras, (SPAIN)	IWA-4938	Attachment and granulation of anaerobic consortia under high salinity conditions. <u>Shahrul Bin Ismail</u> , Hardy Temmink, Caroline M. Plugge, Jules B. van Lier, (NETHERLANDS)
12:25-13:30	Lunch and Poster Exhibition							
13:30-15:30	Second parallel sessions							
		Session A2.2: Sulfate/sulfide conversion/Lettinga award 2007,2010 - Results Jules van Lier		Session B2.2: AD of solid waste/AD of sludge and biosolids production Gonzalo Ruiz		Session C2.2: AD modeling/ Microbial ecology and molecular biology Liliana Borzacconi		Session D2.2: New developments on AD J. Rodr��guez
13:40-14:00	IWA-4918	A study of the metal removal mechanisms in sulfate reducing bioreactors: kinetics, speciation and solid phase characterization. <u>Denys Kristalia Villa G��mez</u> , Stefano Papirio, Eric van Hullebusch , Fran��ois Farges, Serguey Nikitenko, Piet Lens, (NETHERLANDS)	IWA-5124	A two-phase anaerobic system for municipal solid waste treatment. <u>Ligia Patricia Arenas</u> , Humberto Escalante, Marianny Y. Combariza, (COLOMBIA)	IWA-4937	Combination of batch experiments with continuous reactor data for ADM1 calibration: application to anaerobic digestion of pig slurry. Romain Girault, Pierre Rousseau, Jean-Philippe Steyer, Nicolas Bernet, <u>Fabrice B��line</u> , (FRANCE)	IWA-4890	Anaerobic digestion in combination with 2nd generation ethanol production for maximizing biofuels yield from lignocellulosic biomass - testing in an integrated pilot-scale biorefinery plant. <u>Hinrich Uellendahl</u> , Birgitte K. Ahning, (DENMARK)
14:00-14:20	IWA-5016	Biofilm development during the start-up of a sulfate-reducing down-flow fluidized bed reactor at different COD/SO42- and HRT. <u>Elda Z. Pi��a-Salazar</u> , M��nica Meraz, Francisco J. Cervantes, Lourdes B. Celis, (MEXICO)	IWA-5051	Acidogenic Fermentation of Municipal Solid Waste and its Application to Bio-Electricity Production via Microbial Fuel Cells (MFCs) Pelin Cavdar, Elif Yilmaz, A. Evren Tugtas, <u>Baris Calli</u> , (TURKEY) .	IWA-4944	Kinetic properties of a Microbial Community fermenting glucose in a Sequencing Batch Reactor. <u>Robbert Kleerebezem</u> , Mario Pronk, Francisco Fern��ndez Morales, Mark Van Loosdrecht, (NETHERLANDS)	IWA-4896	Biomethanation of synthetic gas using anaerobic granules within a closed loop gas lift reactor. <u>Serge R. Guiot</u> , Ruxandra Cimpoia, Gael Carayon, (CANADA)
14:20-14:40	IWA-5095	Chemical and Biological Reduction of the Azo Dye AB113 Assisted By Sulphate-Reducing Bacteria in Attached-Growth Sequencing Batch Reactors. Dorian Prato-Garc��a, <u>Francisco J Torner-Morales</u> , Francisco J Cervantes, German Buitron, (MEXICO)	IWA-4936	Investigating the Effect of Acid Pretreatment of Waste Activated Sludge on Subsequent Anaerobic Digestion. Des Charles Devlin, <u>Sandra R Esteves</u> , Richard Dinsdale, Alan J Guwy, (UNITED KINGDOM)	IWA-4975	Simulation of the anaerobic digester behavior by using a simplified mathematical model and kinetic parameters calculated through the initial rate technique. <u>Andres Donoso-Bravo</u> , Guzman Garc��a, Sara P��rez-Elvira, Fernando Fdz-Polanco, (SPAIN)	IWA-4910	Effect of pH control and substrate concentration on the hydrogen yield from fermentative hydrogen production. <u>Iosif Mariakakis</u> , Joerg Krampe, Heidrun Steinmetz, (GERMANY)

14:40-15:00		LETTINGA AWARD 2007 -PRESENTATION RESULTS “Immobilization of redox mediators in nanostructures for the anaerobic treatment of industrial wastewaters” Francisco J. Cervantes.	IWA-4955	Effect of Hydraulic Retention Time on Pretreatment of Blended Municipal Sludge. <u>Sebnem Koyunluoglu Aynur</u> , Rumana Riffat, Sudhir Murthy, (UNITED STATES)	IWA-4977	A kinetic analysis of an anaerobic/aerobic filter system treating a synthetic dairy wastewater. <u>Seung Lim</u> , Peter Fox, (UNITED STATES)	IWA-5091	The techno-economical potential of renewable energy through the anaerobic digestion of microalgae. <u>Willy Verstraete</u> , Carlos Zamalloa, Johan Albrecht, Elien Vulsteke, (BELGIUM)
15:00-15:20		LETTINGA AWARD 2010 PRESENTATION WINNER	IWA-4801	Life cycle assessment of anaerobically digested sludge reuse in agriculture. <u>Marta Carballa</u> , Almudena Hospido, Maite Moreira, Francisco Omil, Juan M. Lema, Gumersindo Feijoo, (SPAIN)	IWA-4907	Enrichment of Anaerobic Ammonium Oxidizing (Anammox) Bacteria from Wastewater Sludge. Qais Banihani, Wenjie Sun, <u>James Field</u> , Reyes Sierra Alvarez, (UNITED STATES)	IWA-5014	Design for Augmented Methanisation” a contribution to sustainable biomethanation. <u>Paul Stopp</u> , Dirk Weichgrebe, Karl-Heinz Rosenwinkel, Gerhard Breves , Michael Strecker, (GERMANY)
15:20-16:00	Coffee Break/Poster Exhibition							
16:00-17:30		<i>Workshop 1: AD in the cities of the future.</i> <i>Coordinator:W. Vestraete</i>		<i>Workshop 2: Anaerobic Digestion in Developing Countries.</i> <i>Coordinator: Oscar Monroy</i>		<i>Workshop 3: Advances in Energy Production.</i> <i>Coordinator:Jurg Keller</i>		<i>Workshop 4: Nutrient Recovery</i> <i>Coordinator:Jules van Lier</i>
17:30-18:30	Poster Exhibition							
18:30-19:30	Happy hour (social event)							
WEDNESDAY 3rd NOVEMBER 2010								
9:00-10:00		Plenary session						
		Applications of Anaerobic Technology in East Asia Prof. Herbert H P Fang (Hong Kong, CHINA)						
10:00-10:30		Coffee Break						
10:30-12:35 First parallel sessions								
Session A3.1: Recovery of energy from waste materials Elías Razo			Session B3.1: AD of sludge and biosolids production Franciso Cervantes		Session C3.1: Microbial ecology and molecular biology Madalena Alves		Session D3.1: New developments on AD Robbert Kleerebezem	
10:30-10:50	IWA-4976	Biodegradation performance of lab-scale UASB systems treating black liquor from a pulping process. <u>Anne Klose</u> , Udo Hamm, (GERMANY)	IWA-4959	Anaerobic bioleaching of metals from organic wastes. Ayoma Witharange, <u>Roel Meulepas</u> , Piet Lens, (NETHERLANDS)	IWA-4883	Influence of substrate type and retention time on methanogenic compositions in anaerobic biogas reactors. <u>Seung Gu Shin</u> , Bi Wen Zhou, Woong Kim, Gyuseong Han, Huijuan Li, Seokhwan Hwang, (KOREA, REPUBLIC OF)	IWA-5009	How to get 500 million years of experience in anaerobic digestion: animal mimicking. <u>Jean Jacques Godon</u> , Laure Arcemisbèhère, Renaud Escudié, Ariane Bize, Alain Guillot, Tianlun Li, Edouard Miambi, Alain Robert, Jean Philippe Steyer, (FRANCE)
10:50-11:10	IWA-5087	Anaerobic digestion of macroalgae: methane potentials, pre-treatment, inhibition and co-digestion. Henrik Bangs Nielsen, (DENMARK)	IWA-4950	Increasing economic performance from sludge digesters using trace element supplements. Farryad Ishaq, <u>Cynthia Carliell-Marquet</u> , John Bridgeman, (UNITED KINGDOM)	IWA-4964	Molecular and operational parameters are correlated in anaerobic lab-scale continuous stirred tank reactors. <u>Marta Carballa</u> , Marianne Smits, Claudia Etchebehere, Nico Boon, Willy Verstraete, (SPAIN)	IWA-4806	The Concept and Theory of Anaerobic Suspended Granular Sludge Bed (SGSB) Reactor for Wastewater Treatment. <u>Kaijun Wang</u> , Mingxia Zheng, Zhong Yan, Jingwen Yu, Zhengyu Jin, Guochen Zhang, (CHINA)

THURSDAY 4th NOVEMBER 2010

9:00-10:20 First parallel sessions

Session A4.1: Nutrient recovery issues related to AD José Rodrigues			Session B4.1: AD of sludge and biosolids production Nicolás Bernet		Session C4.1: Automation and control of AD processes V́ctor Alcaráz González		Session D4.1: New developments Jurg Keller	
9:00-9:20	IWA-4785	Fundamentals and Kinetics of Sulfide-Oxidizing Autotrophic Denitrification in Batch Reactors Containing Suspended and Immobilized Cells. <u>Bruna de Souza Moraes</u> , Theo S. Souza, Eugenio Foresti, (BRAZIL)	IWA-5046	Assessing the role of biochemical methane potential tests in determining anaerobic degradability rate and extent. Paul Jensen, Huoqing Ge, <u>Damien J. Batstone</u> , (AUSTRALIA)	IWA-4822	An asymptotic observer-based estimation scheme for solid waste anaerobic digestion. <u>Efren Aguilar</u> , Juan Paulo García-Sandoval, Cesar Arturo Aceves-Lara, Froylán Mario Espinoza - Escalante,(MEXICO)	IWA-4888	A Novel Pilot Plant for the Study of Submerged Anaerobic Membrane Bioreactor (SAMBR) Applied to Domestic Wastewater Treatment. Freddy Durán, Laura Carretero, Juan B. Giménez, Angel Robles, <u>María V. Ruano</u> , Marcela N. Gatti, Josep Ribes, José Ferrer, Aurora Seco, (SPAIN)
9:20-9:40	IWA-4915	Evidence of enhanced phosphate release from anaerobically digested sludge through sulfate reduction. <u>Masanobu Takashima</u> , Yoshihito Tanaka, (JAPAN)	IWA-4866	Food waste - the source of biogas production increase in the municipal WWTPs. <u>Stanislav Sedláček</u> , Miroslava Kubaská, Sona Lehotská, Igor Bodík, (SLOVAKIA)	IWA-4949	Cascade control for anaerobic digestion processes. <u>Juan Paulo García Sandoval</u> , Denis Dochain, Victor Gonzalez-Álvarez, (MEXICO)	IWA-4897	Anaerobic Membrane Bioreactor (AnMBR) Pilot-scale Treatment of Stillage from Tequila Production. <u>Shannon R. Grant</u> , Shannon Roy Grant, Scott J. Christian, Edith Vite, (CANADA)
9:40-10:00	IWA-5086	Energy and phosphorus recovery from black water. <u>Marthe de Graaff</u> , Grietje Zeeman, Hardy Temmink, Cees J.N. Buisman, (NETHERLANDS)	IWA-4999	Anaerobic Digestion of Sewage Sludge with recycled active biomass. <u>Anastasia Y. Vanyushina</u> , Yuri A. Nikolaev, Oksana V. Kharkina, (RUSSIAN FEDERATION)	IWA-5023	Estimation of unmeasured inputs in anaerobic wastewater treatment processes: experimental validation. Medina, Víctor Alcaraz-González, Hugo O. Méndez-Acosta, Víctor González-Álvarez, Juan P. García-Sandoval, Jean P. Steyer, (MEXICO)	IWA-4963	Fouling cake layer in a submerged anaerobic membrane bioreactor (SAMBR) treating saline wastewaters: curse or a blessing?. <u>David Stuckey</u> , Yannis Vyrides, (UNITED KINGDOM)
10:00-10:20	IWA-5070	Enhanced phosphorus removal from anaerobically digested dairy manure by electro-coagulation. <u>Quanbao Zhao</u> , Debbie Davidson, Tianxi Zhang, Jingwei Ma, Craig Frear, Shulin Chen, Joseph H. Harrison, (UNITED STATES)	IWA-5038	Bioaugmentation Can Improve Anaerobic Digester Performance After Organic Overload. Vaibhav P. Tale, James S. Maki, Craig R. Struble, <u>Daniel H. Zitomer</u> , (UNITED STATES)	IWA-5128	Online Estimation of VFA, alkalinity and bicarbonate concentrations by Electrical Conductivity Measurement During anaerobic Fermentation. César-Arturo Aceves-Lara, <u>Eric Latrille</u> , Thierry Conte, Jean-Philippe Steyer, (FRANCIA)	IWA-4980	Pilot scale Anaerobic Submerged Membrane Bioreactor (AnSMBR) treating municipal wastewater: The fouling phenomenon and long term operation. <u>Martínez Sosa David</u> , Helmreich Brigitte, Netter Thomas, Paris Stefania, Bischof Franz, Horn Harald, (GERMANY)
10:20-10:45	Coffee Break/Poster Exhibition							
10:45-12:25	Second parallel sessions							
Session A4.2: Recovery of energy from waste materials Germán Buitrón			Session B4.2: Biodegradation of recalcitrant chemicals Daniel Zittomer		Session C4.2: Microbial ecology and molecular biology Lars Angenent		Session D4.2: New developments on AD/ Process inhibitor Serge Guiot	

10:45-11:05	IWA-5057	Hydrogen production from soft-drink wastewater in an upflow anaerobic packed bed reactor. <u>Guilherme Peixoto</u> , Marcelo Zaiat, (BRAZIL)	IWA-4875	Biodegradation of PAHs during the anaerobic digestion of sludge: modelling the limitations by bioavailability and cometabolism. <u>Glenda Cea Barcia</u> , Maialen Barret, Hélène Carrere, Liliana Delgadillo, Dominique Patureau, (FRANCE)	IWA-4952	Impact of operating history on mixed culture fermentation microbial ecology and product mixture. <u>Yang Lu</u> , Bachelor of Biotechnology (Honours), Frances R Slater, Zuhaida Mohd-Zaki, Steven Pratt, Damien J. Batstone,(AUSTRALIA)	IWA-5129	Mimicking biofouling in anaerobic membrane bioreactors. <u>Miguel Herrera-Robledo</u> , Concepción Arenas, Juan Manuel Morgan-Sagastume, Manuel Salmón, Víctor Castaño, Adalberto Noyola, (MEXICO)
11:05-11:25	IWA-4967	Biohydrogen production in two UASB reactors: influence of different start-up strategies. <u>Julian Carrillo-Reyes</u> , Elías Razo-Flores, Lourdes B. Celis, Felipe Alatríste- Mondragón, (MEXICO)	IWA-4887	2-Chlorophenol toxicity and degradation capacity of sulfate reducing biofilms. <u>Norberto Ulises García-Cruz</u> , Lourdes B. Celis, Jorge Gómez, Héctor Poggi, Mónica Meraz,(MEXICO)	IWA-4983	Enrichment and characterization of Anammox from municipal activated sludge. <u>Juliana Calabria de Araujo</u> , Ana P. Campos, Marcos M. Correa, Eduardo C. Silva, Maria H. Matte, Glavur R. Matte, Marcos Von Sperling, Carlos A. Chernicharo,(BRAZIL)	IWA-4939	Application of two-phase slug-flow regime to control flux reduction on anaerobic membrane bioreactors (AnMBR) Alvaro Torres, Alberto Hemmelmann, Christian Vergara, <u>David Jeison</u> , (CHILE)
11:25-11:45	IWA-5130	Improvement of the hydrogen production using an acidogenic UASB reactor fed with raw cheese whey. Veronica Perna, Elena Castelló, Jorge Wenzel, Liliana Borzacconi, <u>Claudia Etchebehere</u> , (URUGUAY)	IWA-5052	A four compartments model of the PAHs fate during anaerobic sludge digestion. <u>Liliana Rocio Delgadillo-Mirquez</u> , Laurent Lardon, Jean-Philippe Steyer, Dominique Patureau, (FRANCE)	IWA-4877	Effect of xylose and nutrients concentration on ethanol production by a newly isolated extreme thermophilic Thermoanaerobacter sp. <u>Ana Faria Tomas</u> , Dimitar Karakashev, Irini Angelidaki, (DENMARK)	IWA-4913	Pulse shear stress for anaerobic membrane bioreactor fouling control. Jixiang Yang, <u>Henri Spaniers</u> , Jules B. van Lier, (NETHERLANDS)
11:45-12:05	IWA-4892	Techno-economic analysis of bioethanol and biogas production in organic farming. Piotr Oleskowicz-Popiel, <u>Jens Ejbye Schmidt</u> , (DENMARK)	IWA-5001	Anaerobic digestion of 2-Chlorophenol (2CP) in a sequencing batch reactor (SBR). <u>Lizeth Beristain-Montiel</u> , Jorge Gómez, Oscar Monroy, Flor de María Cuervo-López, Florina Ramírez-Vives, (MEXICO)	IWA-4933	Microbial Community Analysis During Continuous Fermentation of Thermally Hydrolysed Waste Activated Sludge. Dores G. Cirne, Philip Bond, Steven Pratt, Paul Lant, <u>Damien J. Batstone</u> , (FRANCE)	IWA-5126	Effect of emulsion stability on anaerobic degradation of wool grease emulsions. <u>Soledad Gutiérrez</u> , Alberto Hernández, Ana Laura Morales, Patricia Lema, (URUGUAY)
12:05-12:25	IWA-5069	ASBR with retained biomass on influent solids treating dairy manure: Effect of settling time. <u>Jingwei Ma</u> , Zhi-Wu Wang, Shulin Chen, (UNITED STATES)	IWA-5037	Anaerobic biodegradation of 2,4,6-trichlorophenol in expanded granular sludge bed and fluidized bed biofilm reactors bioaugmented with Desulfitobacterium spp. <u>Daniel Puyol</u> , Angel F. Mohedano, Juan J. Rodríguez, Jose L. Sanz, (SPAIN)	IWA-4882	Phylogenetic Dynamics of Bacterial Communities in a Time Series of Nine Full-Scale Granular Upflow Digesters Treating Brewery Wastewater. <u>Jeffrey J. Werner</u> , Daniel B. Knights, Marcelo L. García, Nicolas Scalfone, Theresa A. Cummings, Allen R. Beers, Rob Knight, Largus T. Angenent, (UNITED STATES)	IWA-4891	Annual Variation of Chemical Properties and Degradability by Anaerobic Digestion of Landfill Leachate at Benowo in Surabaya, Indonesia. <u>Minako Kawai</u> , Ipung Purwanti, Norio Nagao, Agus Slamet, Joni Hermana, Tatsuki Toda, (JAPAN)
12:25-13:30		Lunch and poster Exhibition						
13:30-15:30		Third parallel sessions						
		Session A4.3: Recovery of energy from waste materials		Session B4.3: Biodegradation of recalcitrant chemicals		Session C4.3: Microbial ecology and molecular biology/Process inhibition		
		Hugo O. Méndez		Manuel S. Rodriguez Susa		Ivan Moreno		

13:30-13:50	IWA-4893	Continuous hydrogen and methane production in a two-stage cheese whey fermentation system. Ciria Berenice Cota-Navarro, Julián Carrillo-Reyes, Gustavo Davila-Vázquez, Felipe Alatríste-Mondragón, Elías Razo-Flores, (MEXICO)	IWA-5012	Priority pollutants, problem moving from water to sludge. Which solutions to future constraints? <u>Patricia Camacho</u> , Etienne Paul, Evelynne Gonze, René Moletta, Mar Esperanza, Samuel Martin . (FRANCE)	IWA-4962	Denaturing Gradient Gel Electrophoresis (DGGE) analysis of Archaeal and Bacterial populations in a Submerged Anaerobic Membrane Bioreactor (SAMBR) treating landfill leachate at low temperatures. <u>David Stuckey</u> , (UNITED KINGDOM)		
13:50-14:10	IWA-4922	Enhanced cellulosic hydrogen production from lime-treated cornstalk wastes by mixed anaerobic cultures. <u>Guangli Cao</u> , Nanqi Ren, Aijie Wang, (CHINA)	IWA-4779	Removal of organic matter and genotoxic effects in a fixed-bed anaerobic reactor treating kraft pulp bleaching effluents. <u>Tatiana R. Chaparro</u> , Eduardo C. Pires, (COLOMBIA)	IWA-5279	Investigation of bacterial and methanogenic archaea diversity in 22 full-scale biogas digesters by 454-pyrosequencing. <u>Carina Sundberg</u> , (SWEDEN)		
14:10-14:30	IWA-4797	Use of pre-treatments to improve the biomethanation of kitchen waste. Jingxing Ma, Hang T. Duong, Marianne Smits, Willy Verstraete, <u>Marta Carballa</u> , (SPAIN)	IWA-5089	Anaerobic treatment of Tequila vinasses in an up flow fixed-bed reactor: start-up, operation and restart-up. Jesús Antonio Jáuregui Jáuregui, Hugo Oscar Méndez Acosta, Raúl Snell Castro, Víctor Alcaraz González, Víctor González Álvarez, (MEXICO)	IWA-5053	Bioaugmentation of Anaerobic Sludge with Syntrophomonas zehnderi as a Prospect for Enhanced Methane Production from Oleate. <u>Ana J. Cavaleiro</u> , Diana Z. Sousa, Madalena Alves, (PORTUGAL)		
14:30-14:50	IWA-4916	Sewage biogas to biomethane for grid injection: challenges and opportunities in Europe. Nicolas de Arespacochaga, Lynne Bouchy, José Luis Cortina, Enric Larrotcha, Mercedes Sánchez, Carlos Peregrina (SPAIN)	IWA-4880	Anaerobic degradation of azo-dye Drimaren blue HFRL using yeast extract as source of redox mediators - evidence of extracellular dye reduction. Bruno E Baêta; Paula C Caldas; Sergio F Aquino; Silvana de Queiroz Silva, (BRAZIL)	IWA-4790	Oxytetracycline and chlortetracycline effect on pig manure anaerobic digestion. Juan A. Álvarez, Laura Otero, <u>Juan Lema</u> , Francisco Omil, (SPAIN)		
14:50-15:30		Coffee Break/Poster Exhibition						
15:30-16:30		AD13 Candidates						
16:30-17:30		Plenary session (Final Lecture)						
		New Developments and Technologies for Energy Recovery from Biomass and Organic Residues. Prof. Bruce Rittmann (UNITED STATES)						
17:30-17:45		Presentation of AD12 outcomes						
		Prof. Adalberto Noyola						
17:45-18:00		Closure Ceremony						
		Mexican Authority						
19:00-24:00		Gala Dinner						
FRIDAY 5th NOVEMBER 2010								

TECHNICAL VISITS		
10:00		Grupo Modelo Brewery
10:30		Cuauhtemoc Moctezuma Brewery
11:00		Hershey's