



MIXING XXV

Quebec City, Canada
June 26th to July 1st, 2016



Technical Program

Sunday, June 26

SIMULATIONS AND MIXING		
Chair	Otute Akiti	
Co-chair	John Thomas	
18:45 - 19:20	Harry Van Den Akker , Bernal Professor of Fluid Mechanics, Bernal Institute, University of Limerick	On a sound basis for tracking particles in a turbulent flow field (KEYNOTE)
19:20 - 19:45	Christian Bach , PhD Student, Technical University of Denmark Mads O. Albaek, Fermentation Scientist, Novozymes A/S Stuart M. Stocks, Technology Specialist, Novozymes A/S Ulrich Krühne, Associated Professor, Technical University of Denmark Krist V. Gernaey, Professor, Technical University of Denmark	CFD for determining mixing and mass transfer in a high power agitated bioreactor
19:45 - 20:10	Eric Berson , Associate Professor, University of Louisville Jonathan Thomas Keith Sharp Mostafa Shakeri	Turbulence transition in orbiting culture dishes
20:10 - 20:35	Mothivel Balaiyya Mummudi Boopathy , Tridiagonal Solutions Inc. Tukaram Suryawanshi, Tridiagonal Solutions Inc. Aashish Goyal, Tridiagonal Solutions Inc.	Better powder mixing using computational modeling
SINGLE PHASE MIXING		
Chair	Jose Carlos Lopes	
Co-chair	Gustavo Padron	
20:50 - 21:15	Piero Armenante , Distinguished Professor, New Jersey Institute of Technology - Dept. of Chemical, Biological and Pharmaceutical Engineering Ji Ma, Ph.D. Student, New Jersey Institute of Technology - Dept. of Chemical, Biological and Pharmaceutical Engineering	Computational and experimental determination of the hydrodynamics in a stirred unbaffled vessel provided with angle-mounted axial impellers
21:15 - 21:40	Jerzy Baldyga , Warsaw University of Technology, Faculty of Chemical and Process Engineering Magdalena Jasinska, Dr., Warsaw University of Technology, Faculty of Chemical and Process Engineering	Efficiency of mixing in single phase and two-phase systems

Monday, June 27

NOVEL TECHNIQUES AND MIXERS		
Chair	Arun Ramachandran	
Co-chair	Clara Gomez	
08:25 - 08:50	<p>Adel Al Taweel, Professor, Dalhousie University</p> <p>Fouad Azizi, Assoc. Professor, Department of Chemical and Petroleum Engineering, American University of Beirut</p> <p>Susheel Arora, Manager of Operations, Halifax Regional Water Commission</p> <p>Alex Speers, Professor, Dept. Process Engineering and Applied Sciences</p> <p>Tadek Dabros, Senior Scientist, CanmetENERGY Devon AB</p>	Using inline coagulation/flocculation to intensify multiphase separation operations
08:50 - 09:15	<p>Ruozhou Hou, Experimental Officer, School of Chemical Engineering and Analytical Science, University of Manchester</p> <p>Adam Kowalski, Professor, Unilever R&D, Port Sunlight Laboratory</p> <p>Peter Martin, Senior Lecturer, School of Chemical Engineering and Analytical Science (SCEAS), University of Manchester</p>	An application of electrical resistance tomography to evaluate the Kenics static mixer performance
09:15 - 09:40	<p>Kishore Kar, Fellow, The Dow Chemical Company</p> <p>Suraj Deshpande, The Dow Chemical Company</p> <p>Richard Cope, Eli Lilly and Company</p> <p>Madan Somasi, DowAgroSciences LLC</p> <p>Quan Yuan, UOP Honeywell Company</p>	KHX: mechanically agitated anti-fouling shell-and-tube heat exchanger
09:40 - 10:05	<p>Mark Leclair, CEO, NanoSpire, Inc.</p>	A revolution in high shear mixing: harnessing directed cavitation reentrant jets
MULTIPHASE MIXING		
Chair	Arthur Etchells	
Co-chair	Ulrich Krüne	
10:20 - 10:45	<p>Frederic Augier, Research Engineer, IFP Energies nouvelles</p> <p>Cecile Plais, Research Engineer, IFP Energies nouvelles</p> <p>Ann Cloupet, Research Engineer, IFP Energies nouvelles</p>	Contribution of bubbles wakes to mixing in stirred and unstirred bubble columns
10:45 - 11:10	<p>Inci Ayranci, Assistant Professor, Middle East Technical University</p> <p>Louis Fradette, Associate Professor, Polytechnique Montreal</p>	An instability in the formation of Pickering emulsions
11:10 - 11:35	<p>David Brown, Technical Director, BHR Group</p>	The effect of physical properties and clearance on the suspension of solids with axial and mixed flow impellers
11:35 - 12:00	<p>Richard Calabrese, Professor, University of Maryland</p> <p>Derrick I. Ko, PhD Student, University of Maryland</p>	Breakage of Single Droplets in 2-D Inertial Flows

MULTIPHASE MIXING		
Chair	Suzanne Kresta	
Co-chair	Frans Visscher	
18:45 - 19:20	William H. Hartt , Engineer, The Procter & Gamble Co	Processing challenges with rapidly evolving rheology multiphase systems (KEYNOTE)
19:20 - 19:45	<p>Ricardo J. Santos, Research Assistant, Universidade do Porto, Faculdade de Engenharia</p> <p>Margarida A. Brito, M.Sc student, Universidade do Porto, Faculdade de Engenharia</p> <p>Nelson D. Gonçalves, Pos-Doc, Universidade do Porto, Faculdade de Engenharia</p> <p>Madalena M. Dias, Professor, Universidade do Porto, Faculdade de Engenharia</p> <p>José Carlos B. Lopes, Professor, Universidade do Porto, Faculdade de Engenharia</p>	Topology of mixing for dissimilar fluids in mesomixers
19:45 - 20:10	<p>Argang Kazemzadeh, PhD Student, Department of Chemical Engineering, Ryerson University</p> <p>Farhad Ein-Mozaffari, Department of Chemical Engineering, Ryerson University</p> <p>Ali Lohi, Department of Chemical Engineering, Ryerson University</p> <p>Leila Pakzad, Department of Chemical Engineering, Lakehead University</p>	A New Perspective in the Evaluation of the Mixing of Biopolymer Solutions with Different Coaxial Mixers Comprising of Two Dispersing Impellers and a Wall Scraping Anchor
20:10 - 20:35	<p>Alexandre Al-Haiek, PhD Student, Montreal Polytechnique</p> <p>Louis Fradette, Associate professor, Montreal Polytechnique</p>	Applicability of conventional scale-up rules to solid-stabilized emulsions (PHD STUDENT)
SIMULATIONS AND MIXING		
Chair	Minye Liu	
Co-chair	Kishore Kar	
20:50 - 21:15	Jakub Bujalski , Principal Engineer, Process R&D and Manufacturing Support CCC, Innovation and R&D, Yara International ASA	CFD simulation and comparison with experimental data of erosion in a three phase stirred tank reactor
21:15 - 21:40	<p>David Dickey, Consultant, MixTech Inc</p> <p>Ravindra Aglave, Director, Chemical Process, CD-adapco</p> <p>Ashkan Davlanlou, Application Engineer, DC-adapco</p>	Using CFD to predict the mixing intensity necessary for process results
21:40 - 22:05	<p>Thomas Eppinger, Dipl.-Ing., CD-adapco</p> <p>Ravindra Aglave, CD-adapco</p> <p>Simon Lo, CD-adapco</p>	Investigating bubble size distribution in fermentation reactors with CFD
22:05 - 22:30	<p>Jason Giacomelli, Research ENgineer, Philadelphia Mixing Solutions LTD</p> <p>John Thomas, CEO, M-Star Simulations LLC</p> <p>Harry Van Den Akker, Professor of Fluid Mechanics, University of Limerick</p>	On the analysis of turbulence with large eddy simulations

Tuesday, June 28

SIMULATIONS AND MIXING		
Chair	Jose Roberto Nunhez	
Co-chair	Konstantinos Steiros	
08:00 - 08:25	<p>Andreas Håkansson, Associate Prof., Kristianstad University</p> <p>Dragana Arlov, Dr, Tetra Pak Processing Systems</p> <p>Fredrik Carlsson, Dr, FS Dynamics</p> <p>Hans Henrik Mortensen, Tetra Pak Scanima</p> <p>Fredrik Innings, Professor, Tetra Pak Processing Systems</p>	Why do emulsification in inline and batch rotor-stator mixers differ? - A CFD approach
08:25 - 08:50	<p>Robert Higbee, Sr. Analytic/Mechanical Design Engineer, Philadelphia Mixing Solutions Ltd.</p> <p>Jason Giacomelli, Research Engineer, Philadelphia Mixing Solutions Ltd.</p>	Periodicity in lattice-Boltzmann CFD simulated rotating impeller cumulative hydraulic force angle versus time plots
08:50 - 09:15	Hua Bai , SABIC Americas Inc	Investigation of ProQuip HiFlow™ mixing impeller in a commercial-scale reactor and comparison of different modeling tools
09:15 - 09:40	<p>Suzanne Kresta, University of Alberta</p> <p>Francesco Maluta, Alexandra Komrakova Department of Chemical and Materials Engineering, University of Alberta</p> <p>Archie Eaglesham, Don Jones Huntsman Polyurethanes</p>	Alternate ways of modeling mixing in reactive systems: meso-mixing, micro-mixing, and reactive precipitation
09:40 - 10:05	<p>John Thomas, President, M-Star Simulations</p> <p>Richard Grenville, Director of Mixing Technology, Philadelphia Mixing Solutions, Ltd.</p>	Time-accurate blending simulations of transitional flow inside stirred tanks
MULTIPHASE MIXING		
Chair	Katsuide Takenaka	
Co-chair	Aaron Strand	
10:20 - 10:45	<p>Richard Grenville, Director of Mixing Technology, Philadelphia Mixing Solutions Ltd.</p> <p>Patrick Spicer, Associate Professor, University of New South Wales</p>	Mixing and flocculation of fine particles
11:10 - 11:35	<p>Lena Hohl, Technische Universität Berlin, Chair of Chemical & Process Engineering</p> <p>Joschka Schulz, Technische Universität Berlin, Chair of Chemical & Process Engineering</p> <p>Susanne Roehl, Technische Universität Berlin, Chair of Chemical & Process Engineering</p> <p>Niklas Paul, Technische Universität Berlin, Chair of Chemical & Process Engineering</p> <p>Matthias Kraume, Technische Universität Berlin, Chair of Chemical & Process Engineering</p>	Analysis of dispersion and coalescence in liquid three phase systems

11:35 - 12:00	Minye Liu , Dr, The Chemours Company	Mean age distribution in time-dependent multiphase flows
12:00 - 12:25	Richard Long , Professor Emeritus, New Mexico State University Asem Al Jarrah Al Jarrah Mohammad Aliedeh	Gas-liquid interfacial area production in a vertical column approaches

APPLICATIONS AND TROUBLESHOOTING

Chair	Frederic Augier	
Co-chair	Victor Atiemo-Obeng	
18:45 - 19:20	Charles Dubois , Professor, Ecole Polytechnique Montreal - Chemical Engineering Dept.	An Insider Look At Energetic Materials Formulation and Mixing (KEYNOTE)
19:20 - 19:45	Paul Gilis , Fellow, The Dow Chemical Company Jason Moore, Senior Engineer, Dow Chemical Michael Poindexter, Fellow, Dow Chemical Michael Cloeter, Technical Leader, Dow Chemical	The development and scaling of static and dynamic mixing systems to dewater Canadian oil sands mine tailings
19:45 - 20:10	Moshe Bentolila , Application Manager, VisiMix Ltd.	Improvement of safety characteristics of stirred reactors (SR) VisiMix® approach to inherently safer design of SR
20:10 - 20:35	Thomas Simpson , Chemical Engineering Consultant, DuPont	Good mixing gone bad – life as an industrial mixing consultant

MIXING UNDER EXTREME CONDITIONS

Chair	Fouad Azizi	
Co-chair	Hua Bai	
20:50 - 21:15	Federico Alberini , Research Fellow, University of Birmingham Olga Mihailova, Dr, Unilever Mark Simmons, Professor, University of Birmingham Adam Kowalski, Professor, Unilever	PIV and torque measurements of the blending of complex rheology fluids in a 1L stirred vessel
21:15 - 21:40	David Brown , Michael Dawson, BHR Group	Effect of additive viscosity on inline blending in the turbulent flow regime
21:40 - 22:05	Clara Gomez , Engineering Research Scientist, Coanda Research and Development Corporation Barry Bara, Senior Research Scientist, Syncrude Canada Ltd.	Fluid fine tailings flocculation using dynamic mixing
22:05 - 22:30	Gustavo Padron , Senior Technical Consultant, BHR Group	Heterogeneous regime transition in gas-liquid mixing in a stirred tank

Wednesday, June 29

MULTIPHASE MIXING		
Chair	Piero Armenante	
Co-chair	Richard Cop	
08:00 - 08:35	Alberto Brucato , Full Professor of Chemical Plant Design, Università degli Studi di Palermo	Mixing in unbaffled stirred vessels (KEYNOTE)
08:35 - 09:00	<p>Andrzej W. Pacek, Professor, School of Chemical Engineering, University of Birmingham</p> <p>Ping Ding, Professor, School of Chemical Engineering, University of Birmingham</p> <p>Mark Garrett, Professor, School of Chemistry and Chemical Engineering, Queens University, Belfast</p> <p>Alvin W. Nienow, Professor, School of Chemical Engineering, University of Birmingham</p>	Oxidations of bark suspensions in a stirred tank reactor
09:00 - 09:25	<p>Raj Parthasarathy, Deputy Head, Chemical Engineering, RMIT University</p> <p>Daniel Stoian, PhD Student, RMIT University</p> <p>Nicky Eshtiaghi, Senior Lecturer, RMIT University</p> <p>Jie Wu, Principal scientist, CSIRO</p>	Enhancing solid-liquid mass transfer and impeller power efficiency in a mechanically agitated vessel employing dual impellers
09:25 - 09:50	<p>Thomas Wood, EngD Student, University of Birmingham</p> <p>Mark Simmons, Professor, University of Birmingham</p> <p>Richard Greenwood, Dr, University of Birmingham</p> <p>Hugh Stitt, Professor, Johnson Matthey</p>	Slurryability: What makes a powder difficult to incorporate into a slurry?
09:50 - 10:15	<p>Ken Primrose, CEO, Industrial Tomography Systems plc</p> <p>Kent Wei, Research manager, ITS</p> <p>Changhua Qiu, Principal engineer,</p> <p>Tom Machin, Doctoral student, University of Birmingham</p>	New developments in the application of electrical tomography to in-line and batch mixing
MULTIPHASE MIXING		
Chair	David Dickey	
Co-chair	Inci Ayranc	
10:30 - 10:55	<p>Arun Ramachandran, Assistant Professor, University of Toronto</p> <p>Sachin Goel, Graduate student, University of Toronto</p>	The effect of a yield stress on the drainage of the thin film between two colliding Newtonian drops
10:55 - 11:20	<p>Katsuhide Takenaka, Manager, Sumitomo Heavy Industries Process Equipment Co., Ltd</p> <p>Hiro Horiguchi, Sr Engineer, Sumitomo Heavy Industries Process Equipment Co., Ltd.</p> <p>Shoji Morinaga, Sr Engineer, Sumitomo Heavy Industries Process Equipment Co., Ltd.</p> <p>Koji Takahashi, Professor, Yamagata University</p> <p>Tomoyo Satoh, Student/Ms, Yamagata University</p>	Mass transfer in solid-liquid system with high concentration

11:20 - 11:45	Alehlí Holguín-Salas , PhD student, Instituto de Biotecnología-Universidad Nacional Autónoma de México Enrique Galindo, Instituto de Biotecnología-Universidad Nacional Autónoma de México Gabriel Corkidi, Dr, Instituto de Biotecnología-Universidad Nacional Autónoma de México	Three-phase dispersion in a pilot proto-fermenter containing mycelial biomass: characterization of the local bubble size distribution as a function of the gassed power drawn
11:45 - 12:10	Arthur Etchells , Rowan University Robert Hesketh, Professor, Rowan University	A correlation for cloud height in solid-liquid mixing
12:10 - 12:35	Louis Fradette , Professor, Polytechnique Montreal Emir Tsabet, Polytechnique Montreal	A semi-empirical approach for predicting the scale-up effect on the mean size of solid-stabilized emulsions

SIMULATIONS AND MIXING

Chair	Richard Grenville	
Co-chair	Harry Van Den Akker	
18:45 - 19:20	Philippe A. Tanguy , Direktor/Corporate Vice President, Total Deutschland GmbH Xiao Wang, Total S.A.	Polymer kneading technology: an industrial viewpoint (KEYNOTE)
19:20 - 19:45	Maxime Pigou , PhD Student, Laboratoire d'Ingénierie des Systèmes Biologiques et des Procédés Jérôme Morchain, Assistant Professor, Laboratoire d'Ingénierie des Systèmes Biologiques et des Procédés	ADENON: a simulation tool to address mixing issues in bioreactors
19:45 - 20:10	Bruno Blais , PhD Student, Research Unit for Industrial Flows Processes (URPEI), Department of Chemical Engineering, École Polytechnique de Montréal Francois Bertrand, Professor, Montreal Polytechnique O. Bertrand, Montreal Polytechnique M. Lassaigne, Montreal Polytechnique L. Fradette, Professor, Montreal Polytechnique	Understanding Solid-Liquid Mixing Through the Development of a Novel CFD-DEM Model
20:10 - 20:35	Jose Nunhez , Professor, State University of Campinas, UNICAMP, Campinas, Brazil R. Jaimes, State University of Campinas, UNICAMP, Campinas, Brazil J.L. Gomez, State University of Campinas, UNICAMP, Campinas, Brazil N. Spogis State University of Campinas, UNICAMP, Campinas, Brazil M.B. Machado, Chemical and Materials engineering department, University of Alberta, Edmonton, Canada S.M. Kresta, Chemical and Materials engineering department, University of Alberta, Edmonton, Canada	Investigating the influence of mesh density and some numerical aspects of CFD modeling in the prediction of the power number, flow number and heat transfer coefficients for the PBT impeller

SINGLE PHASE MIXING		
Chair	Alvin Nienow	
Co-chair	Luis Sierra	
20:50 - 21:15	<p>Eric Janz, Research and New Product Development Director, Mixing Technologies, National Oilwell Varco</p> <p>Robert Strong, Research Engineer, National Oilwell Varco</p> <p>Kevin Myers, Professor, University of Dayton</p>	The applicability of the use of open impellers at low Reynolds numbers
21:15 - 21:40	<p>Konstantinos Steiros, Imperial College, London</p> <p>Paul J K Bruce, Lecturer, Imperial College, London</p> <p>Oliver R H Buxton, Lecturer, Imperial College, London</p> <p>Christos Vassilicos, Professor, Imperial College, London</p>	Theoretical modelling of the steady and transient power number in a stirred tank
21:40 - 22:05	<p>Justin Walker, The Dow Chemical Company</p> <p>Suraj Deshpande, The Dow Chemical Company</p> <p>Kishore Kar, The Dow Chemical Company</p> <p>Jim Pressler, The Dow Chemical Company</p> <p>Wenyu Su, The Dow Chemical Company</p>	The effect of viscosity and impeller geometry on stable vortex formation in a stirred tank

Thursday, June 30

SIMULATIONS AND MIXING		
Chair	Ken Primrose	
Co-chair	Justin Walker	
08:00 - 08:35	Jocelyn Doucet , CEO, Pyrowave	How mixing is to blame in some process scale-up failures (KEYNOTE)
08:35 - 09:00	Takaaki Yajima , Sumitomo Heavy Industries Process Equipment Co.,Ltd. Ryota Hirose, Sumitomo Heavy Industries, Ltd Hiroo Horiguchi, Sumitomo Heavy Industries Process Equipment Co.,Ltd. Keiji Esaki, Sumitomo Heavy Industries Process Equipment Co.,Ltd. Daiji Ichishima, Sumitomo Heavy Industries, Ltd Nariaki Matsumiya, Sumitomo Heavy Industries, Ltd	Analysis of mixing using renormalization molecular dynamics
09:00 - 09:25	Fabian Sewerin , Dipl.-Ing., Imperial College, London Stelios Rigopoulos, professor, Imperial College, London	A combined LES-PBE-pdf approach with PBE-grid adaptivity for modelling turbulent mixing and precipitation
09:25 - 09:50	Eric Janz , Research and New Product Development Director, Mixing Technologies, National Oilwell Varco Robert Strong, National Oilwell Varco Kevin Myers, University of Dayton Markus Rumpfkeil, University of Dayton	Finite volume vs. lattice Boltzmann in mixing applications
NOVEL TECHNIQUES AND MIXERS		
Chair	Mark Leclair	
Co-chair	Richard Calabrese	
10:05 - 10:30	José Carlos B. Lopes , Professor, Universidade do Porto, Faculdade de Engenharia Nelson N. Gonçalves, Pos-Doc, Universidade do Porto, Faculdade de Engenharia Cláudio P. Fonte, Researcher, IFPE Madalena M. Dias, Professor, Universidade do Porto, Faculdade de Engenharia Ricardo J. Santos, Research Assistant, Universidade do Porto, Faculdade de Engenharia	Mixing in CIJS: insight into highly efficient 2D laminar micro / mesomixers
10:30 - 10:55	Bernd Nienhaus , Group Leader R&D, EKATO Mixing Technology Werner Himmelsbach, Vice President R&D, EKATO Mixing Technology	New developments in impeller design for solid-liquid applications
10:55 - 11:20	Alvin Nienow , Emeritus Professor of Biochemical Engineering , University of Birmingham	Agitation strategies for the culture and detachment of human mesenchymal stem cells (hMSCs) from

		microcarriers in multiple stirred bioreactor platforms
11:20 - 11:45	Kent Wardle , Principal Nuclear Engineer, Argonne National Laboratory, Argonne, Illinois	Multiphase application of 3D printing for liquid-liquid extractor design
11:45 - 12:10	Aaron Strand , Research Engineer, Spxflow Richard Khen, Director – Research and Development, Spxflow	Blending efficiency of linear mixers and rotating agitators at equal power

Poster Presentations

MONDAY, JUNE 27	
Christine Beaulieu PhD Candidate, Polytechnique Montreal, Montréal, Quebec , PhD Candidate, Polytechnique Montreal	Influence of Granular Segregation on Heat Transfer in a Rotary Kiln
Moshe Bentolila , Application Manager , VisiMix Ltd., Israel. And The Hebrew University of Jerusalem	Scale Up Methodology for the Fine Chemical Industry - The Influence of the Mixing in the Process
Jason N. Goldberg , P. Eng., North America Technical Sales Manager - Mixers, Xylem Inc.	Energy-saving mixer pays big dividends
Jorge Ramírez Cruz , PhD student , Universidad Nacional Autónoma de México Martín Salinas Vázquez, Universidad Nacional Autónoma de México, Instituto de Ingeniería Gabriel Ascanio Gasca, Universidad Nacional Autónoma de México, Centro de Ciencias Aplicadas y Desarrollo Tecnológico.	Mixing Hydrodynamics in an Unbaffled Stirred Tank Using GPU-Based Large-Eddy Simulations.
Konstantinos Stamatopoulos , PhD student , University of Birmingham Hannah K. Batchelor, Senior Lecturer?Dr., University of Birmingham Prof. Mark J. H. Simmons, Head of School of Chemical Engineering/ Prof.,	Analysis of human colon fluid dynamics by Positron Emission Particle Tracking System (PEPT) and Positron Emission Tomography (PET) using an in vitro Dynamic Colon Model (DCM)
Marcela Věříšová , Ph.D. student, Czech Technical University in Prague, Faculty of Mechanical Engineering, Department of Process Engineering Martin Dostál, Dr., Czech Technical University in Prague Tomáš Jirout, Prof., Czech Technical University in Prague	imilarities between impinging jets and flow in agitated batch induced by axial-flow impellers with draft tube
Petr Vlček , Ing., Czech Technical University in Prague, Faculty of Mechanical Engineering Tomáš Jirout, prof., Czech Technical University in Prague, Faculty of Mechanical Engineering	CFD simulation of flow in a mixing device with a draught tube
Bing Wan , Student, Polytechnique Montreal	Phase Inversion of Solid-Stabilized Emulsions
Madhu V. Majji , Ph.D Student, Levich Institute, City College of New York	Flow Transition and Tracer Mixing in Taylor-Coutte Flow of Neutrally Buoyant Fluid-Particle Suspension

TUESDAY, JUNE 28	
Billy Allen , Engineering Advisor, Eli Lilly and Company	“Oxygen Transfer Coefficients by the Dynamic Gassing, Hydrogen Peroxide and Mass Balance Methods at Power Inputs and Superficial Gas Velocities Applicable to Commercial Fermentation Processes”
David Alejandro Arjona Rivera , Resp. Laboratorio de Ingeniería Química, Universidad Autónoma de Yucatán David Alejandro Arjona Rivera, student, Universidad Autónoma de Yucatán Daniel Angel Mena Romero, Teacher, Universidad Autónoma de Yucatán Maria Dalmira Rodriguez Martín, teacher, Universidad Autónoma de Yucatán	Effect of Blade Shape on the Dissipated Power of Disk Turbine Impellers: his relation with low-pressure core of the trailing vortices.
James Cardus , PhD Student, University of Birmingham	Use of reactive plif for the evaluation of micromixing and mixing times in a stirred tank
Cyrus John Uera Espinoza , EngD Student (Research Engineer), University of Birmingham Mark J. H. Simmons, Professor, University of Birmingham Federico Alberini, Doctor, University of Birmingham Adam J. Kowalski, Professor, Unilever Port Sunlight	Emulsification of non-Newtonian Mixtures in a High Shear Mixer
Alehlí Holguín-Salas , PhD student, Instituto de Biotecnología-Universidad Nacional Autónoma de México Enrique Galindo, Dr, Instituto de Biotecnología-Universidad Nacional Autónoma de México	The behavior of local gas retention and interfacial area in a pilot stirred tank as a function of gassed power drawn and mycelial biomass content
Sang Jin Lee , Analytical Engineer, Philadelphia Mixing Solutions, Ltd. Robert W. Higbee, Senior Analytical, Mechanical Design Engineer, Philadelphia Mixing Solutions, Ltd. Jason Giacomelli, Research and Development Engineer, Philadelphia Mixing Solutions, Ltd.	A study on the effective design methodology of the agitator shaft assembly
Aaron Strand , Research Engineer, Spxflow Ricahrd Khen, Director – Research and Development, Spxflow	Flow Dependence on Off Bottom Location and Impeller Diameter
Nihat Yavuz , North Carolina State University K.P. Sandeep, North Carolina State University	Mixing of a Non-Newtonian fluid in a stirred tank with a modified pitched blade impeller
Nasim Hashemi , Ph.D Student, Ryerson University Farhad Ein-Mozaffari, Professor, Ryerson University Simant R. Upreti, Professor, Ryerson University Dae Kun Hwang, Assistant Professor, Ryerson University	Experimental investigation of power consumption, mixing time, and bubble behavior in an aerated reactor equipped with a coaxial mixer

WEDNESDAY, JUNE 29	
<p>Adel Al Taweel, Professor, Dalhousie University Albahlool Idhbeaa, Ph.D. Candidate, Dalhousie University Amyl Ghanem, Assoc. Professor, Dalhousie University</p>	<p>Development of an Energy-Efficient High-Rate Bioreactor</p>
<p>Fouad Azizi, Dr, American University of Beirut Khaled Abou Hweij,</p>	<p>Liquid-Phase Mixing in Contactors Equipped with Screen-Type Static Mixers</p>
<p>Salur Basbug, PhD Student, Imperial College London George Papadakis, Reader, Imperial College London Christos Vassilicos, Professor, Imperial College London</p>	<p>DNS Investigation of Mixing in a Stirred Tank with Regular and Fractal Blades</p>
<p>Francesco Maluta, Department of Chemical and Materials Engineering, University of Alberta Alexandra Komrakova, Department of Mechanical Engineering, University of Alberta Archie Eaglesham, Huntsman Polyurethanes Don Jones, Huntsman Polyurethanes Suzanne Kresta, Department of Chemical and Materials Engineering, University of Alberta</p>	<p>The optimization of mechanistic model parameters to predict undesired reactive precipitation of by-products</p>
<p>Fatemeh Safari, University of Alberta Akshay Bhalerao, University of Alberta Marcio Bezeera Machado, Research Associate, University of Alberta Alexandra Komrakova, Professor, University of Alberta Suzanne Kresta, Professor, University of Alberta</p>	<p>Effect of mixing energy on the transient drop size during liquid-liquid drawdown in different tank geometries using in-situ FBRM</p>
<p>Colin Saraka, Master's Candidate, Department of Chemical and Materials Engineering, University of Alberta Márcio Machado, Department of Chemical and Materials Engineering, University of Alberta Samson Ng, Syncrude Canada Ltd. Sujit Bhattacharya, Syncrude Canada Ltd. Suzanne Kresta, Principal Investigator, Department of Chemical and Materials Engineering, University of Alberta</p>	<p>Uncovering Dynamics of Mesomixing in the Feed Plume for Froth Dewatering Using In-Situ FBRM and PVM</p>
<p>Adriana Gaona, PhD Student, University of Toronto</p>	<p>Evaluating the Mixing Performance of High-Solids Lignocellulosic Enzymatic</p>
<p>Petr Viček, Ing., Czech Technical University in Prague, Faculty of Mechanical Engineering Tomáš Jirout, prof., Czech Technical University in Prague, Faculty of Mechanical Engineering Bohuš Kysela, Ing. ,Ph.D, Institute of Hydrodynamics, AS CR, v.v.i.</p>	<p>Large eddy simulation of homogenization process in a pitched blade impeller mixed vessel</p>
<p>Olivier Bertrand, Department of Chemical Engineering, École Polytechnique de Montréal</p>	<p>Development of pressure based methods for the determination of the just-suspended speed and suspension state in viscous solid-liquid mixing</p>