



Department of Chemical Engineering

Chemical Engineering Research Day

March 14, 2013

9am-8pm

École Polytechnique de Montréal

Montréal, Québec

Canada H3C 3A7

This event is sponsored by:

Swagelok

ThermoFisher
SCIENTIFIC



General Program

- 8:00 Arrival/registration
- 8:30 Welcome message
- 8:45 Morning Plenary (Sylvain Coulombe)
- 9:30 Coffee break
- 9:45 Presentations
- 11:45 Lunch break
- 12:20 Lab tours
- 13:00 Afternoon Plenary (Anastassis Kozinatis)
- 13:45 Presentations
- 15:30 Coffee break + poster/stand setup
- 15:45 Presentations
- 17:30 Wine & Cheese + poster session
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Map



- ◆ Bell Amphitheater (Main Building #1, 6th floor, room C-631)
- ◆ Gallerie Rolland (Main Building #1, 6th floor, room B-600.16)
- ◆ Rotonde - for lunch (Main Building #1, 1st floor, reserved section in the cafeteria)

Graduate Student Seminars

Bell Amphitheater (C-631)

Start*	Name	Supervisors	Title
9.45	Sotcheadt Sim	Michael Buschmann, Eric Quenneville	<ul style="list-style-type: none"> The Spatial Pattern Of Articular Cartilage Electromechanical Properties In The Stifle Joint Is Similar In Three Different Species
10.00	Xian Li	Caroline Hoemann	<ul style="list-style-type: none"> Analysis Of Multipotential Mesenchymal Bone Marrow Stem Cell Adhesion To Hydrophobic And Hydrophilic Surfaces Coated With Antimicrobial Competence Stimulating Peptide
10.15	Sarah Decker	Thomas Quinn	<ul style="list-style-type: none"> Adsorption And Distribution Of Fluorescent Solutes Near The Articular Surface Of Mechanically Injured Cartilage
10.30	Nicole Weckman	Nathalie Tufenkji	<ul style="list-style-type: none"> Quartz Crystal Microbalance Studies Of Biomolecule Binding To Cranberry Derived Proanthocyanidins
10.45	Yousef Shafieyan	Thomas. M. Quinn	<ul style="list-style-type: none"> Low Frequency Mechanical Stimulation Enhances Osteoclastogenesis
11.00	Atefeh Ghorbaniaghdam	Mario Jolicoeur	<ul style="list-style-type: none"> Dynamic Model To Simulate Cho Cells Metabolic Behaviour And Metabolic Network Fluxes Kinetics
11.15	Ines Hammami	Mario Jolicoeur	<ul style="list-style-type: none"> Metabolic Study Of Myeloid-Derived Suppressor Cells In The Context Of Cancer-Related Immunosuppression
11.30	Javier Coronado	Michel Perrier, Boris Tartakovsky	<ul style="list-style-type: none"> Microbial Fuel Cell Operation With Pulse-Width Modulated Connection Of The External Resistor
Lunch break			
13.45	Omid Ebrahimpour	Jamal Chaouki, Charles Dubois	<ul style="list-style-type: none"> Fabrication Of Mullite Bonded Porous Sic Ceramics Via Sol-Gel Method And In-Situ Polymerization
14.00	Ebrahim Alizadeh	François Bertrand, Jamal Chaouki	<ul style="list-style-type: none"> Numerical and Experimental Investigation of Solid Mixing and Segregation in a Tetrapodal Blender
14.15	Mahmoudreza Aghighi	Jeff T. Gostick	<ul style="list-style-type: none"> Pore Network Modeling Of Phase Change In Porous Media
14.30	Bayron Garcia	Milan Maric	<ul style="list-style-type: none"> Synthesis Of Thiol End-Functional Poly(Styrene-Acrylonitrile) Copolymers For Reactive Blending With Poly(Ethylene)
14.45	Moeed Shahamat	Alejandro Rey	<ul style="list-style-type: none"> Molecular Modeling Simulations In Phase Stability Of Polyethylene Solutions At Elevated Pressures
15.00	Ahmad Zohre Vand	Abdellah Ajjji, Frej Mighri	<ul style="list-style-type: none"> Development Of Polymer Nanocomposite Films For Photovoltaic Cell Applications
15.15	Zi Jun Wang	Milan Maric	<ul style="list-style-type: none"> Nitroxide Mediated Synthesis Of Well-Defined Copolymers For Low-Loss Optical Waveguides
Coffee break			
15.45	Amir Sheikhi	Reghan J. Hill	<ul style="list-style-type: none"> Interfacial Microrheology For Quantifying Colloidal Particle-Hydrogel Adhesion Dynamics
16.00	Chih-Ying Wang	Reghan J. Hill	<ul style="list-style-type: none"> Hydrogel Cushions Increase Lipopolymer Mobility In Supported Bilayer Systems
16.15	Chi Zhang	Milan Maric	<ul style="list-style-type: none"> Synthesis And Characterization Of Thermo-Responsive Polymers In Aqueous And Ionic Liquid Solutions
16.30	Fei Li	Reghan J. Hill	<ul style="list-style-type: none"> Soft Nanoparticle Gel Electrophoresis
16.45	Leron Vandsburger	Sylvain Coulombe, Jean-Luc Meunier	<ul style="list-style-type: none"> Surface Chemistry of Carbon Nanotube - Glow Discharge Interactions in the Presence of Strong Electric Fields
17.00	Christopher Alex Dorval Dion	Jason Robert Tavares	<ul style="list-style-type: none"> PICVD As A Viable Alternative For The Low-Cost And Scalable Surface Functionalization Of Nanoparticles
17.15	Hang Hu	Alejandro Rey, Linda Reven	<ul style="list-style-type: none"> Density Functional Theory Studies Of Gold Nanorods Surfaces
Poster session / Wine and cheese			

*Talks are 15 minutes in duration

Gallerie Rolland (B-600.16)

Start*	Name	Supervisors	Title
9.45	Annie Levasseur	Réjean Samson	<ul style="list-style-type: none"> How To Deal With Time When Assessing The Global Warming Impact Of Bioenergy Systems
10.00	Masood Khaksar Toroghi	Michel Perrier	<ul style="list-style-type: none"> Process Monitoring And Control Of Microalgae Cultivation
10.15	Soumaya Benzennou	Jamal Chaouki, Jocelyn Doucet	<ul style="list-style-type: none"> Upgrading Of Oils From Microwave Assisted Pyrolysis Of Household Waste
10.30	Ali Seifitokaldani	Oumarou Savadogo, Michel Perrier	<ul style="list-style-type: none"> Mixed Oxy-Nitride Catalysts As An Alternative To Pt In Pem Fuel Cells: Production, Characterization And Ab Initio Simulation
10.45	Daria Camilla Boffito	Gregory S. Patience	<ul style="list-style-type: none"> Sonochemical Enhancement Of Methyl Esters Production
11.00	Jonathan Verrett	Phillip Servio	<ul style="list-style-type: none"> Characterizing Methane Hydrate Growth Promotion Via Surfactants
11.15	Farzam Fotovat	Jamal Chaouki, Jeffrey Bergthorson	<ul style="list-style-type: none"> Characterization Of Hydrodynamics And Solids Mixing In Fluidized Beds Containing Biomass
11.30	Tatiana Rafione	Jean Paris	<ul style="list-style-type: none"> Toward The Development Of Green Integrated Forest Biorefinery Complex
Lunch break			
13.45	Radia Ammara	Louis Fradette, Jean Paris	<ul style="list-style-type: none"> Exergy Analysis Of Canadian Kraft Mills
14.00	Maryam Haddad	Jean Paris, Oumarou Savadogo	<ul style="list-style-type: none"> Treatment of Kraft Black Liquor in Electrodialysis Cell using Bipolar Membrane
14.15	Miyuru Kanningara	Louis Fradette, Jean Paris	<ul style="list-style-type: none"> Impact Of Lignin Extraction On The Recovery Loop Of The Kraft Process: Measures To Minimize The Consumption Of Chemicals
14.30	Salomeh Chegini	Jean Paris, Maria Marinaova, Mario Jolicoeur	<ul style="list-style-type: none"> Detoxification Of Hemicelluloses Hydrolysates From Pulp Mills By Membrane Extraction
14.45	Cong Du	Reghan J. Hill	<ul style="list-style-type: none"> Iridescent Paper-Based Polymerized Colloidal Crystal Arrays For Molecular-Sensing
15.00	Vahid Khoshkava	Musa Kamal	<ul style="list-style-type: none"> Polymer Nanocomposites Incorporating Nanocrystalline Cellulose(Ncc)
15.15	Salman Safari-Mohsenabad	Reghan J. Hill, Theo G. M. van de Ven	<ul style="list-style-type: none"> Nanofibrillar Cellulose Deposition And Barrier Properties
Coffee break			
15.45	Viet Cao	Louise Deschênes, Basil D. Favis, Manuele Margni	<ul style="list-style-type: none"> Biopolymer And Sustainable Supplying
16.00	Angela Rodayan	Viviane Yargeau	<ul style="list-style-type: none"> Illicit Drugs In Wastewater, Surface Water And Drinking Water: A Comparison Of Sampling Techniques
16.15	Li Shen	Viviane Yargeau, Chris Metcalfe	<ul style="list-style-type: none"> Development Of A Passive Sampler For Nag In Environmental Waters
16.30	Daniel Dixon	Nathalie Tufenkji	<ul style="list-style-type: none"> Bacterial Capture Efficiency Of Planktonic And Surface Immobilized Bacteriophage In The Presence Of Potential Interferents
16.45	Bahareh Asadishad	Nathalie Tufenkji, Subhasis Ghoshal	<ul style="list-style-type: none"> Effects Of Low Temperature And Freeze-Thaw On Survival And Transport Of Selected Gram-Positive And Gram-Negative Bacteria In Saturated Porous Media
Poster session / Wine and cheese			

Thank you for attending