

# Scientific Program for 2011 Entretiens Jacques Cartier Colloquium on

## *21<sup>st</sup> Century Catalysis Science and Applications*

*Thursday, September 29, 2011*

<b>Time</b>	<b>Speaker</b>	<b>Affiliation</b>	<b>Lecture Title</b>
8:30	Organizers	uOttawa and Lyon	Opening welcome from organizers and uOttawa
	<b>Session 1</b>		<b>Understanding Fundamental Steps of Catalytic Cycles</b>
9:00	<i>Plenary 1</i> Odile Eisenstein	Montpellier	Computational Approaches to Homogeneous Catalysis: a Powerful Tool with "Some" Limitations
9:45	Warren Piers	Calgary	Mechanistic Aspects of Hydrogen Activation by Perfluoroarylboranes.
10:15	Vy Dong	Toronto	Asymmetric Catalysis Inspired by Lactones and Lactams
10:45	Coffee		
11:15	Jennifer Love	UBC	Developing Catalytic Reactions One Step at a Time
11:45	Sylviane Sabo-Etienne	Toulouse	Ruthenium Sigma-Complexes in Catalysis
12:15	Tom Woo	Ottawa	3D-QSAR Models of Homogeneous Catalysis Using DFT-Based Shape and Reactivity Descriptors
12:45	Lunch		
	<b>Session 2</b>		<b>Biocatalysis and Biomass Conversion</b>
13:45	<i>Plenary 2</i> Peter Kast	ETH	On the Playground of Evolution: from Enzyme Dissection to Designer Biocatalysts
14:30	Joëlle Pelletier	Montreal	Modifying Enzymes for Applications in Biocatalysis and in Medicine
15:00	Jeff Tolan	Iogen	Iogen's Process for the Production of Ethanol from Wheat Straw
15:30	Jeff Keillor	Ottawa	Transglutaminase-Mediated Ligation Reactions
16:00	Coffee		
16:30	Serge Kaliaguine	Laval	Catalytic Valorization of Glycerol
17:00	Jacques Monnier	NRCan	Catalytic Hydrodeoxygenation of 4-Methylbenzenediol
17:30	Stephane Rose-Marie	Enerkem	Conversion of Non-Homogeneous Biomass to Ultraclean Syngas and Subsequent Stepwise Catalytic Ethanol Synthesis
18:00	Philippe Sautet	Lyon	Heterogeneous Catalysis for Renewable Resources and Energy: a Molecular View from Simulations
18:30	Posters		
19:30	Dinner on own		

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	<b>Session 3</b>		<b>Applications of Molecular Catalysis</b>
9:00	<i>Plenary 3</i> Anny Jutand	ENS Paris	Contribution of Electrochemistry to Organometallic Catalysis
9:45	Davit Zargarian	Montreal	Catalytic Transformations Promoted by Pincer-Type Nickel Complexes: Exploring New Reaction Pathways
10:15	Bruce Arndsten	McGill	Palladium Catalyzed Multicomponent Reactions: Heterocycle and Polymer Synthesis in One Step
10:45	Coffee		
11:15	Deryn Fogg	Ottawa	Ethylene-Free Enyne Metathesis
11:45	Heinz Berke	Zurich	Metal-Free and Non-Platinum Metal Hydrogenations
12:15	Jérôme Claverie	UQAM	Recent Advances in the Catalytic Copolymerization of Ethylene with Polar Monomers
12:45	Lunch		
	<b>Session 4</b>		<b>Nanoscience and Energy Applications</b>
13:45	<i>Plenary 4</i> Fabio Ribeiro	Purdue	Model Catalysts and Dynamic Methods in Catalysis
14:30	Nicolas Abatzoglou	Sherbrooke	Fischer-Tropsch Synthesis in 3-f slurry reactors with Nano-iron carbides
15:00	Claude de Bellefon	Lyon	Catalysis in Micro-Structured Reactors
15:30	Suljo Linic	Michigan	Design of Targeted Nanostructures for Efficient and Environmentally Friendly Catalysis and Photocatalysis
16:00	Coffee		
16:30	Ajay Dalai	Saskatchewan	Development of Iron- and Cobalt-supported Carbon Nanotubes – Promising Novel Fischer-Tropsch Synthesis Catalysts for Liquid Fuels
17:00	Matthias Driess	Berlin	The Berlin Approach: Oxidative Coupling of Methane as a Paradigm for the ‘Holistic’ View on Catalysis
17:30	Gabor Laurenczy	EPFL	Hydrogen Storage and Delivery – a Viable Homogeneous Catalytic System in Aqueous Solution
18:00	Serge Palacin	CEA	Functional Catalysts for Hydrogen Production and Uptake, and Oxygen Reduction based on Modified Carbon Nanotube Networks
18:30	Organizers	uOttawa and Lyon	Closing Comments