



TRANSFORMATIVE RESEARCH TO COMBAT CLIMATE CHANGE CHALLENGE WORKSHOP

Wednesday, October 12th, 2016

Hosted by the University of Toronto

Sponsored by



CO₂ Chemistry and Engineering Solutions to Climate Change

The concentration of CO₂ in our atmosphere has now risen from 290ppm at the beginning of the Industrial Revolution to 405ppm today. We are now confronted with the challenge of how best to curb this increase in emissions and meet the CO₂ reduction target of the 2016 Paris Agreement.

Two main strategies were proposed in the Paris Agreement to achieve this target. The first underscores mitigation of greenhouse gas emissions, the second stresses reduction of fossil fuel consumption.

The central theme of this workshop focuses attention on a third paradigm, specifically using different approaches for converting CO₂ to value-added chemicals and fuels. If successful, this strategy could help enable energy security, environment protection and climate control. The vision of an energy transition to an economy founded on CO₂ as a chemical feed-stock, considered as an asset rather than a liability, presents a credible science and engineering model with a calculable cost, assessable risk, and a definable benefit over a quantifiable development time period.

Opening Remarks

By

The Honourable Glen Murray

Minister of the Environment and Climate Change



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WORKSHOP AGENDA

Time: 8:30am to 3:00pm

The Faculty Club

St. George Campus, University of Toronto

41 Willcocks Street, Toronto, ON, M5S 3G3

8:30 - 9:00	Welcome Breakfast
9:00 - 9:15	Opening Remarks: The Honourable Glen Murray, Minister of the Environment and Climate Control
9:15 - 9:55	Plenary Speech by Professor Peter Styring, Director of Research, Chemical and Biological Engineering, University of Sheffield, UK
9:55 - 10:15	Invited Speech by Emmanuel Varenne, Volvo Trucks: The Future of Dimethyl Ether in Automotive Fuel
10:15-10:35	Invited Speech by Dr. Rebecca Boudreaux, President, Oberon Fuels
10:35-10:45	Break
10:45-11:05	Invited Speech by Professor Geoffrey Ozin, Department of Chemistry, University of Toronto
11:05-11:25	Invited Speech by Eric Switzer, GV Energy Incorporated: Canada's Future for Dimethyl Ether in Diesel
11:25-11:45	Invited Speech by Tom Mallouk, Department of Chemistry, Penn State University
11:45-12:45	Lunch
12:45- 1:05	Invited Speech by John Paul Morgan, Chief Technology Officer, Morgan Solar: Solar Gasoline
1:05 - 2:05	Networking Session
2:05 - 2:25	Invited Speech by John Jackson, Research and Innovation Development Officer, National Sciences and Engineering Council of Canada (NSERC)
2:25 - 2:45	Invited Speech by Dr. Antonio Anselmo, CEO, ChemBioPower
2:45 - 3:00	Concluding Remarks and Coffee