



Catalysis Division NEWSLETTER

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Our division is a member of the
Chemical Institute of Canada (CIC)
and a club of the North American
Catalysis Society (NACS)
www.nacatsoc.org



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Report from the Chair

The 22nd Canadian Symposium on Catalysis held in Quebec City, May 13-16, 2012 was very successful. I would like to thank Professor Serge Kaliaguine from Laval University and his organizing committee for their efforts. During the Catalysis Division Business meeting on May 14, 2012, a new slate of Executive Committee members were elected. A description of the new Executive is listed in this newsletter.

I would like to take this opportunity to thank the outgoing members of the Executive committee for their service to the Division over the past years, in particular, the Outgoing Chair Professor Ajay Dalai for his contributions and leadership. I would also like to thank our past Newsletter Editor, Josephine Hill, for her efforts in putting together a most informative Newsletter.

The 2012 Chemical Institute of Canada Catalysis Award winner is Professor Charles Mims, University of Toronto. He gave his award lecture on "Catalytic Mechanisms-More Important than Ever" at the 22nd Canadian Symposium on Catalysis in Quebec City.

Members can look forward to an exciting 23rd Canadian Symposium on Catalysis to be held in Edmonton on May 11-14, 2014. More details will be found in this Newsletter. The next North American Catalysis meeting will be held in Louisville, Kentucky, on June 2-7, 2013. Abstracts and Kokes travel award applications are due by November 15, 2012. Details can be found on the website www.23nam.org.

It is an exciting time for catalysis research since catalysis plays an important role for a sustainable future for our environment and energy needs. Please advertise our Division and encourage your colleagues and students to become members of the Catalysis Division of the Chemical Institute of Canada.

Garry Rempel, FRSC,FCIC

Introduction to Executives of Catalysis Division of CIC for 2012-2014



Chair: Garry Rempel

Garry is a professor in the Department of Chemical Engineering, University of Waterloo and holds the Lanxess Inc./NSERC Industrial Research Chair in Advanced Rubber Technology. His research areas include catalysis, polymer science, environmental and pollution control.

Vice Chair: Tom Baker

Tom joined the Chemistry Department at the University of Ottawa in 2008 as Tier 1 Canada Research Chair in Catalysis Science for Energy Applications and Director of the Centre for Catalysis Research and Innovation. His research interests include applications of homogeneous and supported molecular catalysts to hydrogen storage, biomass conversion, tandem processes using alkanes, and “green routes” to fluorocarbons.



Secretary/Treasurer: Josephine M. Hill

Josephine is the Zandmer/Canada Research Chair in Hydrogen and Catalysis in the Department of Chemical & Petroleum Engineering, Schulich School of Engineering, University of Calgary. Her research focuses on catalysts for solid-oxide fuel cells, hydrotreating, and gasification as well as the development of catalysts and adsorbents from petroleum coke.



Past-Chair: Ajay Dalai

Ajay is working as Associate Dean, Research and Partnerships, and Canada Research Chair in Bioenergy at the University of Saskatchewan. His current research focus is the development of gas to liquid (GTL) technologies, biodiesel productions and applications, hydrogen/syngas production from waste materials, hydroprocessing of heavy gas oil, value-added products from biomass, solid acid catalysis, and activated carbon and CNT production and applications.



Newsletter Editor: Hui Wang

Hui is currently an Associate Professor in the Department of Chemical and Biological Engineering at the University of Saskatchewan. His research interests are heterogeneous catalysts development, catalyst and catalytic reaction study using synchrotron X-ray absorption spectroscopy, chemical reaction engineering and separation/adsorption processes.

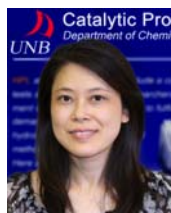


Associate Newsletter Editor: Serge Kaliaguine

Serge is a professor at the Department of Chemical Engineering of Université Laval in Québec City and former NSERC chair holder in Industrial Nanomaterials: Catalysts, Adsorbents and Membranes. His current research interests involve mesostructured



materials, zeolites and perovskites as catalysts for biofuels synthesis, glycerol valorisation and environmental catalysis. Some of his research work also deals with membranes for PEM fuel cells and gas phase separations.



Web Master: Ying Zheng

Ying is a professor in the Department of Chemical Engineering, University of New Brunswick. Her research focuses on catalysis, clean/renewable fuels and new chemical processes.

Member-at-Large: Gregory Patience

Gregory joined the Department of Chemical Engineering at the École Polytechnique in 2004 after 14 years at E. I. du Pont de Nemours & Co where he led programs related to process development, catalysis and textiles in Wilmington, DE, Asturias, Spain and Geneva, Switzerland. Currently his areas of interest include reactor design, fluidization, kinetics and catalyst manufacture.



Member-at-Large: Natalia Semagina



Natalia is an Assistant Professor at the Department of Chemical and Materials Engineering at the University of Alberta. Before coming to Canada, she'd worked for 3 years in Swiss Federal Institute of Technology in Lausanne and for 6 years in Tver State Technical University in Russia. Her research field is controlled nanoparticle synthesis for catalytic applications and three-phase hydrogenation reactions.

Member-at-Large: Zhongwei Chen

Zhongwei (John) Chen is an assistant professor in the Department of Chemical Engineering at University of Waterloo. His current research interests are in the development of advanced catalysts and composite membranes for electrochemical energy storage and conversion systems, particularly in PEM fuel cells, metal-air batteries and lithium ion batteries.



Member-at-Large: Cecile Siewe



Cécile obtained a PhD in Chemical Engineering from Imperial College, University of London. She subsequently did Post-Doctoral work with BP Research in England, and the universities of Waterloo and Calgary, in Canada. She also obtained an MBA from the University of Calgary. She worked with the Scientific Research & Experimental Development Program of the Canada Revenue Agency, before joining Shell in 2005, where she is currently the Manager for Upgrading Technology Development.

2012 Award Winners

2012 Cross-Canada Lecture Tour (CCLT)

The directors of the CCF recognize the necessary interaction of the Canadian catalysis community with the other members of the international community. To help foster such interactions the CCF has established and sponsors a biennial Cross-Canada Lecture Tour in which an internationally prominent catalysis worker lectures at several sites across Canada. The intent of this award is to choose a speaker to present lectures at 4-6 locations across Canada. The speaker will be someone active in the field of catalysis who is recognized as a leader in the field, without regard for nationality or location at which the research was carried out. The selection of the speaker is made by a committee appointed by The Catalysis Division. The tour will be held every two years, in alternate years to the Burwell Lectureship.

Award Winners

Lectureship (CCLA):
2009 M. Baird
2010 C. Crudden
2011 A. Dalai
2012 K.J. Smith

Lecture Tour (CCLT):
2006 A. Corma
2008 No award given
2010 E. Iglesia
2012 G.D. Yadav

Professor G. D. Yadav, Vice Chancellor and R.T. Mody Distinguished Professor at Institute of Chemical Technology, Mumbai has made outstanding contributions to Green Chemistry &



Technology, Catalysis Science & Engineering and Biotechnology. He has provided breakthroughs in design, synthesis and applications of novel catalysts. He reported the first solid with highest superacidity, interpreted inversion in reaction rates and selectivity of Friedel Crafts alkylations, and novelties of tri-liquid phase transfer catalysis. He is held in high esteem by Indian industry and industrial associations. He is an active consultant to several industries and his work is commercialized. His productivity includes: 53 patents, 248 journal papers, 61 PhDs, 62 Masters, 3400 citations and h index of 32. He is decorated with numerous awards and fellowships of prestigious academies: Indian National Science Academy, TWAS-The Academy of Sciences of the Developing World, Institute of Chemical Engineers, UK, Indian Institute of Chemical Engineers.

2012 Canadian Catalysis Lectureship Award (CCLA)

The CCF created and sponsors the Canadian Catalysis Lectureship Award. The lectureship is restricted to Canadians who are currently working in Canada in the area of catalysis, and is intended to provide exposure for Canadian scientists and engineers. The lecture tour is to be held annually, and to include 4 to 6 Canadian cities. It will be offered to a limited number of locations in the USA as well, the sites to be determined through The North American Catalysis Society, of which The Catalysis Division of CIC is a member. The recipient will be chosen by a committee appointed by The Catalysis Division, and could be either a researcher recognized as a leader in a particular field of research, or someone who has just completed a new and interesting or controversial piece of work but who is not yet widely recognized.

Kevin Smith, Professor of Chemical and Biological Engineering at the University of British Columbia, has more than 25 year experience in applied catalysis research that has focused on issues related to the Canadian energy scene. His primary interests are in C₁-catalysis and upgrading Canadian oilsands. He has published widely and consistently in the areas of alcohol synthesis from syngas, methane conversion, hydrotreating and hydroconversion of heavy oils, and has more than 85 journal publications. He is the recipient of the Canadian Council of Professional Engineers Medal for Distinction in Engineering Education (2006) and the APEGBC Teaching Award for Excellence in Engineering and Geoscience (2005). He has served as Head of the Department of Chemical and



Biological Engineering at the University of British Columbia (2001-2009), Chair of the Catalysis Division of the CIC (2000-2002) and President of the Canadian Catalysis Foundation (2002-2004). In 2004, he was elected Fellow of the CIC.

2011 CCLA Recipient Dr. Ajay Dalai on Tour

Professor Dalai of the University of Saskatchewan, the 2011 CCLA recipient, has toured UBC, Alberta, Waterloo, McMaster, Toronto, Ottawa, École Polytechnique de Montréal, Université de Sherbrooke, UNB and Memorial. The title of his presentation was "Development of Carbon Nanotubes Supported Novel Catalysts for Fischer-Tropsch and Higher Alcohol Syntheses".



22nd Canadian Symposium on Catalysis: Quebec City, May 13-16, 2012

The 22nd Canadian Symposium on Catalysis has been successfully held in Quebec City from May 13 to 16, 2012. The theme of this conference is "*Catalysis, a science of multiple applications.*" Organized and hosted by the organized committee chaired by Professor Serge Kaliaguine of Laval University, the symposium had seven sessions including poster session, invited ten well-known plenary and keynote speakers, and attracted 131 delegates and 62 student attendees.



23rd Canadian Symposium on Catalysis: Catalysis: the Best of Science and Engineering, Edmonton, AB, May 11-14, 2014

Professor Natalia Semagina of University of Alberta is the chair of the 23rd Canadian symposium on Catalysis to be held from May 11 to 14, 2014 at the Westin in Edmonton. Professor Bob Hayes will be the technical chair of the symposium.



**23rd Canadian Symposium on Catalysis, 11-14 May 2014
Edmonton, Alberta**

**23rd CSC-2014
“Catalysis: The Best of Science and Engineering”**

You are welcome to join us in Edmonton for the 23rd Canadian Symposium on Catalysis in May 2014. The Symposium will cover both fundamental and applied aspects of heterogeneous and homogeneous catalysis, including catalytic reactor design, with a special emphasis on the energy and environment sectors.

Travel awards for the students will be available from the Canadian Catalysis Foundation.

Looking forward to seeing you in Alberta,
Technical Program Chair: Robert E. Hayes, University of Alberta
Conference Chair: Natalia Semagina, University of Alberta