

InnoTech Alberta Distinguished Lecture

Carbon Capture and Utilization

Design, Stability, Scale-up and Field Performance

Speaker

Prof. Abdel Sayari

University of Ottawa, Canada

Authority in Heterogeneous Catalysis and Separation Sciences

Location

InnoTech Alberta - Edmonton: 250 Karl Clark Road, Edmonton; Tel: (780) 450-5111

Video Conference Live Stream

InnoTech Alberta - **Devon**: 1 Oil Patch Dr, Devon; Tel: (780) 987-8744

InnoTech Alberta - **Calgary**: 3608 - 33 St NW, Calgary; Tel: (403) 210-5222

InnoTech Alberta – **Vegreville**: 75 St. & Hwy 16A, Vegreville; Tel: (780) 632-8211

Date & Time:

November 29, 2016

9:00 – 10:00 AM

Continental Breakfast 8:00 – 9:00 AM will be available

Please RSVP To:

Organizer Contacts:

Ataullah Khan, Researcher: AtaullahKhan.Mohammed@innotechalberta.ca

Harold Krenkel, Functional Manager: Harold.Krenkel@innotechalberta.ca

Abstract

This lecture will focus on design and development of technical sorbents and catalysts for CO₂ capture and utilization respectively. Various aspects involved in hybrid Nanoporous material design, production scale-up, performance optimization, contaminant tolerance, and field testing will be covered. State-of-the art of CO₂ utilization via catalytic activation over supported ionic liquids as effective immobilized catalysts in the production of cyclic carbonates, green solvents and oxygenated fuel additives will also be discussed.

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Biography

Dr. Abdel Sayari is Professor of Chemistry at the University of Ottawa. He is Fellow of the Canadian Institute of Chemistry, and Editor of Journal of Molecular Catalysis. He is also the



Founding Director of the Centre for Catalysis Research and Innovation (CCRI) at the University of Ottawa. Dr. Sayari received his PhD in Heterogeneous Catalysis from Université of Lyon in France. After a postdoctoral fellowship at the University of Pittsburgh, he moved North to join the National Research Council of Canada in Ottawa. In 1990, he became Professor of Chemical Engineering at Laval University in Quebec City. In 2001, he joined the University of Ottawa as a Canada Research Chair with the mandate to establish the CCRI.

During his 35 year+ career, Dr. Sayari made outstanding contributions in many important areas of catalysis, mostly related to environmental protection and the energy sector. He developed a wide variety of catalysts, including zeolites, mixed oxides, solid superacids and supported metals and alloys. More recently, he became a leading figure in the field of nanoporous materials and their applications in catalysis and gas separation. Of particular interest to this audience, he pioneered the CO₂ capture by chemical adsorption since the early 2000. He developed and patented innovative materials with unprecedented attributes for CO₂ removal and investigated their chemical and physical stability. Dr. Sayari published more than 250 refereed papers in leading journals of Chemical Engineering, Chemistry, Catalysis and Material Sciences. He also published seven book chapters and eight patents, and co-edited four books. With an H-index of 70 and more than 17000 citations, he is currently one of Canada's most cited chemists.