

# Invited Lecture

**Title:** Catalysis and the Energy Challenge

**Speaker:** Prof. Alexis Bell

University of California, Berkeley

**Date & Time:** 9:30 -11:30 June 9, 2014

**Venue:** Room 223, IPE Mansion



## Introduction

Professor Bell graduated from Massachusetts Institute of Technology in 1967. After that, he joined the UC Berkeley as an assistant professor and be promoted to full professor in 1976. He was elected to the National Academy of Engineering in 1987 and the Fellow of the American Association for the Advancement of Science in 1988. He served as editor in chief for Chemical Engineering Science (2006-2011) and Catalysis Reviews - Science and Engineering (1985- ) and editor for Proceedings of the National Academy of Sciences (2011- ). He has over 591 publications on various aspects of heterogeneous catalysis and chemical reaction engineering.

He is interested in understanding the fundamental relationships between the structure and composition of heterogeneous catalysts and their performance. The study of reaction mechanisms and the identification of factors limiting the activity and selectivity of catalysts are also objectives of his research. Reaction systems being investigated include the synthesis of oxygenated compounds from  $\text{CO}_x$  ( $x = 1, 2$ ), the conversion of alkenes to olefins and oxygenated products under oxidizing conditions, conversion of biomass to fuels, and the electrochemical reduction of water and carbon dioxide to hydrogen and carbon monoxide, respectively.