

Nanocomposite Catalysts: Enabling Innovations for Sustainable Energy and Environmental Technologies

Dr. Jorge Beltramini

(Senior Research Fellow – NANOMAC–AIBN,
The University of Queensland, AUSTRALIA)



2018年4月20日(金) 15:00–16:00

創成科学研究棟 4階セミナー室 A

<http://www.cat.hokudai.ac.jp/access.html>

Nanostructured functional materials are used for the critical design of heterogeneous catalysts to deliver products from multiple step reactions that are required for energy and environmental applications. In this presentation, an overview of the range of functional materials such as nanoparticles and nanocrystalline materials for hydrogen production and storage, biomass conversion to biofuels and chemicals and environmental applications will be highlighted. Various strategies will be presented that demonstrate how additional material properties can be exploited maximizing the activity, selectivity and stability of composite materials as solid catalysts and energy carriers. Composite materials allow for the extensive engineering of a catalyst enabling careful tuning of the type, amount and position of active sites, as well as the porosity and hydrophilic /hydrophobic nature of the final catalyst, allowing their synergetic action in various catalytic applications.

Dr Jorge Beltramini, is Senior Research Fellow at the Nanomaterials Centre–AIBN, University of Queensland, Australia with more than 30 years of experience in the fundamental areas of Petroleum Refining Technologies, Solid State Catalysis, Surface Characterization, Material Science, Reactor Design and Modelling. He held academic and industrial appointments in Argentina, Saudi Arabia and Australia. Recently he was appointed Invited Professor at IROAST Centre at Kumamoto University, Japan and Adjunct Professor at the Centre for Tropical Crops & Bio commodities at Queensland University of Technology, Australia. He has also been awarded a 2018 JSPS Professorial Long Term Invitational Fellowship to conduct research on Nanopores Hybrid Metal Organic Framework Catalysts for the Direct Activation of Methane at Chemistry Department, Kumamoto University.

問合せ先：触媒科学研究所・福岡 淳 (fukuoka@cat.hokudai.ac.jp・011-706-9140)