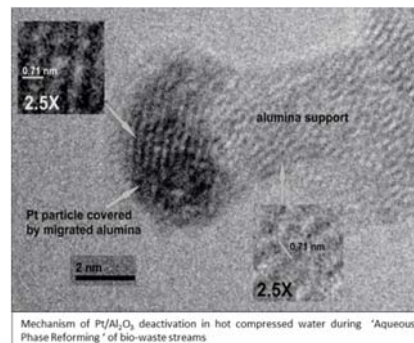


CATALYSIS IN GREEN CHEMISTRY AND ENVIRONMENTAL APPLICATIONS

Overview

Catalysis is a fundamental feature of all life processes and of chemistry of the environment; hence it is also one of the main strengths of the chemical industry. It is also well established that there is a growing demand for more environmentally benign technologies in the chemical industry. Such a trend towards what is known as 'Green Chemistry' or 'Sustainable Technology' necessitates a paradigm shift from traditional concepts to the modern ideas that eliminates waste at source and avoids the use of toxic and/or hazardous materials. Catalysts, made by molecular design, play an important role in the development of environmentally acceptable processes.



Course Objectives

Green chemistry addresses the environmental impact of both chemical products and the processes by which they are produced. At first, it will be demonstrated how knowledge that comes from studies of catalysis at the molecular level helps to design new, more efficient catalysts and catalytic processes. In the next part, the importance of catalytic technologies current and those for solving environmental issues and providing sustainable development will be discussed.

Dates	June 1-10, 2016
Host Institute	Indian Institute of Technology-Madras
No. of Credits	2 (28 lecture hours)
No. of Participants	Limited to 40
Who Should Attend	Undergraduate, Post-graduate or Research Students of both Science and Engineering streams as well as from Industry
Course Registration Fee	Participants from IIT-Madras or other approved institutes of GIAN Students : Rs. 2,000; Faculty : Rs. 6,000 Government Research Organization Participants : Rs. 10,000 Industry Participants : Rs. 20,000
Mode of Payment	Demand draft in favour of "Registrar, IIT Madras" payable at Chennai
Accommodation	The participants may be provided with hostel accommodation, depending on the availability, on payment basis. Request for hostel accommodation may be submitted through the link: http://hosteldine.iitm.ac.in/iitmhostel

Course Faculty



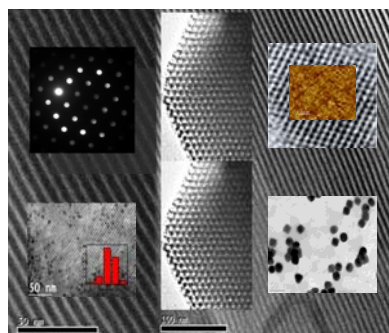
Professor K. Seshan is in the Faculty of University of Twente, The Netherlands. His research interests are in the area of Applied Industrial Catalysis and include Biomass Conversion, Green Fuels and Chemicals, Spectroscopy and Catalysis in liquid-phase, Activation of Stable Molecules and Materials, and Natural gas conversion. For details see link below.

<https://www.utwente.nl/tnw/cpm/people/Seshan/>



Professor P. Selvam is in the Faculty of IIT-Madras. His research interest is on the development of nano-, nanoporous- and bulk-materials / catalysts for a variety of applications, viz., Fuel Cells, Solar Fuels, Batteries, Hydrogen Energy, Heterogeneous Catalysis, Photocatalysis and Biomass Conversion. For details see link:

<http://chem.iitm.ac.in/faculty/selvam/>



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