Workshop on

Frontiers of Electrochemical Science and Technology: Powering our Future with Clean Energy Storage and Conversion

Organized by

Department of Chemical Engineering in association with Department of Chemistry and Nano Research Facility, Indian Institute of Technology Delhi , India, March 4th (Monday) 2013

The coming of age of some emerging economies such as India and China and increased realization of possible climate changes brought about by greenhouse emissions have increasingly pointed to the need for energy conservation and adoption of clean sources of energy. In this electrochemistry with its ability for direct conversion of electricity to chemical change has the potential for transforming how we power our planet, move people and goods, work and entertain ourselves. This workshop will introduce recent advances in science and engineering frontiers of electrochemical energy storage and conversion.

Programme:

2:00 pm - 2:45 pm: 'Finally Unplugged, transforming our World with Efficient Charge Transfer at an Electrochemical Interface' by Sanjeev Mukerjee[1]

An overview of electrochemical energy conversion and storage from the point of view of factors with control charge transfer at an electrochemical interface.

2:50 pm – 3:35 pm: "Molecular Engines with Smart Hierarchical Structures" by Plamen Atanassov[2]

An overview of the materials science challenge of efficient transport using novel hierarchical structures.

Tea Break: 3:40 pm -4.00 pm

4:00 pm – 4:45 pm: "Electrocatalysis: The Art of Tailoring Charge Transfer for Energy Conversion and Storage' by Sanjeev Mukerjee[1]

Fundamentals of electro catalysis for energy conversion and storage.

4:50 pm – 5:35 pm:"Bio-Electrochemical Interface: Taking Lessons from God" by Plamen Atanassov[2]

Harnessing biochemical processes for next generation power sources.

Limited seats: Interested graduate students register on FCF basis at secretarytohod@gmail.com

Venue: Seminar Hall, Chemical Engineering Department (II/278), IIT Delhi

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