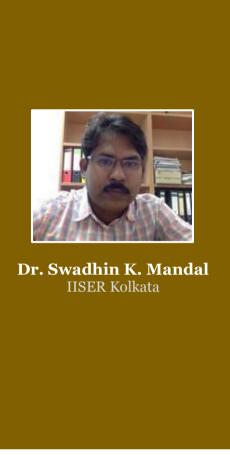


INSTITUTE SEMINAR

19TH JANUARY, 2018 | 04:00PM | ROOM 214





TITLE

Mimicking Transition Metals: Lesson from Other Discipline

ABSTRACT

Today's major concerns on the industrially used catalytic systems have been: i) high expense of catalysts; ii) toxicity of transition metals; iii) difficulties in removal of trace amounts of toxic-metal residues from desired product; and finally iv) the large consumption of heavier and rare transition metals which do not meet the requirement of sustainable development. In this regard, the development of environmentally benign cost-effective catalysts is ideal. Naturally, the most recent trend in catalyst development heralded a new era using either earth-abundant, nontoxic, and inexpensive metals or metal-free catalysis.

This talk will discuss our recent developments in this concept[1-6] on how systematically one can mimic the transition metal based catalysis avoiding any transition metals. The emphasis will be given on how we came up with the development of a new concept in catalysis, which was primarily triggered by an entirely different discipline of material science and spin electronics.[5, 7]

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