

Special Thematic Issue for Current Catalysis

Surface Studies in Heterogeneous Catalysis

Guest Editors: Dr. Anand S. Burange

Aims & Scope:

Heterogeneous catalysis is a surface phenomenon. One of the most basic steps in Heterogeneous catalysis is adsorption. Any changes occurred on catalyst surface like surface charge, strength of acidic/basic sites, availability of active sites, percent metal dispersion in case of supported metal catalysis, etc. affect the catalytic activity. Few other factors like degree of surface defects, SMSI and presence of sub-surface species also contribute for altered catalytic activity of the material.

Techniques like SEM, TEM, XPS, etc. help to understand surface of the material but operated under UHV condition.

In nutshell there is great room for understanding of surface in real time catalysis. Combination of UHV techniques for surface analysis, surface models and experimental proof, collectively can help in better understanding of the subject.

This special issue is focused on all the types of catalysis with some covered aspects of surface science.

Submission to this special issue on "Surface Studies in Heterogeneous Catalysis" are welcome in the form of original research articles, short review articles reflecting

glimpse of surface science in following topics.

Topics: Catalytic organic transformation; photocatalysis; catalytic abatements of SO_x, NO_x, CO₂; mechanistic investigation studies,

Keywords: Surface science; SMSI; heterogeneous catalysis; metal oxides; mixed metal oxides

Subtopics:

material synthesis and characterization and other related topics.

Schedule:

- ◇ Manuscript submission deadline: 30th June 2019
- ◇ Peer Review Due: 1st August 2019
- ◇ Revision Due: 30th August 2019
- ◇ Announcement of acceptance by the Guest Editors: 10th September 2019
- ◇ Final manuscripts due: 25th September 2019

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