



# CHEMFEST 2012

## IITK Chemistry

September 01, 2012  
Outreach Auditorium

# Program

8:55 - 9:00 am

Introductory remarks by Prof. P. K. Bharadwaj (HOD)

## Session A Chair: Prof. R. Gurunath

L1. 9:00 - 9:30 am

**Prof. V. K. Yadav**

``My Mess''

L2. 9:30 - 10:00 am

**Prof. P. Sen**

Contemplating the discrete protein sub-domains

L3. 10:00 - 10:15 am

**Ms. Sayantani Saha**

N-heterocyclic carbenes: normal and abnormal adaptations

L4. 10:15 - 10:30 am

**Mr. Priyabrata Dasgupta**

Pd-catalyzed atom-efficient threefold arylations using triarylbismuth reagents in domino and bis-couplings

10:30 - 11:00 am

## High tea

## Session B Chair: Prof. M. Ranganathan

L5. 11:00 - 11:30 am

**Prof. J. N. Moorthy**

Exploitation of sterics: modulation of organic reactivity and development of functional materials

L6. 11:30 - 12:00 noon

**Prof. N. Nair**

Multiscale modeling of catalytic reactions: developments and applications

L7. 12:00 - 12:15 pm

**Mr. S. B. Maity**

Rhodamine derivative as chemodosimeter/chemosensor for detection of metal ions

L8. 12:15 - 12:30 pm

**Ms. Rima Lahiri**

Synthetic strategies towards unnatural azasugars as potential glycosidase inhibitors

## **Session C Chair: Prof. S. Verma**

*L9. 2:00 - 2:30 pm*

**Prof. M. K. Ghorai**

Enolate anions and dianions in stereoselective C-C bond formation

*L10. 2:30 - 3:00 pm*

**Prof. S. P. Rath**

Are two rings better than one? Inorganic and bioinorganic perspectives on porphyrin dimers

*L11. 3:00 - 3:30 pm*

**Prof. G. Anantharaman**

Trinuclear Cu-NHC complex: synthesis, structural characterization and reactivity

*L12. 3:30 - 3:45 pm*

**Mr. Nityanand Sahu**

Tailoring approach for large molecular clusters: applications and appraisal

*L13. 3:45 - 4:00 pm*

**Mr. Akhilesh Shende**

Inference of gene interaction networks from DNA microarray using mutual information

## **Concluding remarks**

**4:15 - 6:30 pm**

**Posters/Tea**

# **Posters**

**1. Mr. K. Sooraj**

Mechanism of oxidative degradation of PMR-15.

**2. Mr. Venkataramana Immandi**

Mechanistic details of the Wacker process.

**3. Mr. Tushar Ghosh**

Rh<sub>1</sub>/Al<sub>2</sub>O<sub>3</sub> single atom catalysis of CO oxidation: mechanism, effects of hydration and cluster size.

**4. Mr. D. Das**

Exploring the role of polarization on the dual fluorescence of IR 125.

**5. Mr. Subhomoy Das**

A simple route to highly substituted piperidines.

**6. Mr. Aditya Bhattacharyya**

Synthesis of chiral beta- and gamma-amino ethers, morpholines, and their homologues via nucleophilic ring-opening of chiral activated aziridines and azetidines.

**7. Ms. Garima Tripathi**

Meta binding peptides - design of 12-crown and 18-C-6 containing peptides.

**8. Mr. Susan Sen**

MOF containing [Zn<sub>8</sub>O]<sup>+14</sup> SBU unit with Zn-Zn bond shows high proton conductivity.

**9. Mr. Shibin Chacko**

Synthesis of biologically relevant 3-amino 1,4 diols.

**10. Ms. Anijamol T. Philip**

Non innocent dithians.

**11. Mr. V. Karthik**

Backbone thiofunctionalized imidazolium salts: metallation studies, electronic property and catalytic activity.

**12. Mr. Sk. A. Ikbal**

Supramolecular chirality in dimeric metalloporphyrin hosts: synthesis, structure and its rationalization.

**13. Mr. S. Bhowmik**

A novel series of oxo and hydroxo bridged Fe(III) bisporphyrins: synthesis, structure and properties.

**14. Mr. Shradhey Gupta**

Origin of strong synergism in weakly perturbed binary solvent system: a case study of primary alcohols and chlorinated methanes.