Tata Institute of Fundamental Research
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Internal Seminar

Transition from Coordination Chemistry to Main Group Chemistry

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The field of coordination chemistry is one of the most intellectual, attractive and experimentally demanding frontiers in modern chemical sciences. Coordination compounds are used as magnetic materials, non-linear optics, as fluorescent materials, in supramolecular chemistry, catalysis and bioinorganic chemistry etc. Several monometallic, heterobimetallic, homotrinuclear and heterotrinuclear complexes were synthesized and utilized in different catalytic activities and application in photochemistry. On the other hand, the field of transition metal boron chemistry that represents the compounds with maximum vertices to single boron has experienced a renaissance during the past few decades. The bonding of borane and metallaborane clusters, having non-classical, electron-deficient and multicentre-two-electron bonds is rather more difficult to understand. The mutually synergistic interactions between metals and organic ligands often generate compounds of fundamental and practical importance. Several higher vertex clusters as well as electron precise molecules have been synthesized. The key results of this work will be described.

Monday, Apr 1st 2019

2:30 PM (Tea/Coffee at 2:00 PM)

Seminar Hall, TIFR-H