TIFR Centre for Interdisciplinary Sciences
21, Brundavan Colony, Narsingi, Hyderabad 500 075

InternalSeminar

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TopicI: Trapping the mononuclear intermediate during conversion of apo to dinuclearholoCuA: introduction of a blue copper coordination environment.

Cytochrome c oxidase belongs to a heme-copper oxidase superfamily and is the terminal respiratory enzyme. The dinuclear copper center (CuA) is the electron entry site in cytochrome c oxidase enzyme. Specific mutations at the CuA center of cytochrome c Oxidase are generated using PCR technique, to create a coordination environment to trap the intermediate mono-copper site proposed in the pathway from the apo-protein to the di-copper site of the CuA center. The amino acid sequence of the coordinating loop of the mutant CuA protein C153P/L155H/H157A matches that of rusticyanin, a naturally occurring mononuclear blue copper protein.

Topic II: Study of the metabolic effect of arsenic toxicity on Vignaradiata using HPLC-MS.

In this section, characterization and catalysis from hydrogen-evolving electrocatalystsNi(P_2N_2)$_2$ modified electrode will be discussed. The effect of surface attachment on catalysis rate and overpotential will also be discussed based on comparing homogeneous Vs surface-bound catalytic results measured in the same solvent and electrode material.

Tuesday, Jun 14th 2016

2:00 PM (Tea/Coffee at 1:45 PM)

Seminar Hall, TCIS