

Internal Seminar

Role of coordinating loop residues in binding the first Copper ion during formation of binuclear CuA centre: A peptide and protein based approach

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Cytochrome c Oxidase, the terminal enzyme in the electron transport chain consists of four metallic centres. The site of electron entry is the binuclear mixed valence CuA centre. Stopped flow kinetics have suggested that the insertion of Cu ions in Apo-CuA site takes place one at time and the mononuclear intermediate has been detected only for short lifetimes. In this talk I will focus on: (a) Stable mimics of the mononuclear intermediate by designing peptide Cu complexes, where the peptides have been derived from coordinating loop of the CuA centre, (b) Role of conserved residues of the coordinating loop of the CuA centre in sequestering the first Cu ion and (c) Obtaining a stable form of the mononuclear intermediate in CuA protein by introducing mononuclear coordination environment in the coordinating loop of CuA protein.

Monday, Nov 6th 2017

04:00 PM (Tea/Coffee at 03:30 PM)

Auditorium, TIFR-H