

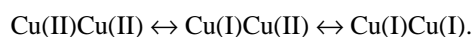
Chemically distinct coupled Cu(II) dimers: Structure and physicochemical properties

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Tridentate Schiff's base prepared from 4-methyl-2-amino pyridine and salicylaldehyde acts as binucleating ligand, coordinating as bidentate with one metal ion and monodentate with the second metal ion. The binuclear Cu(II) complex with a acetato group has been prepared as the mono perchlorato salt.

Electron paramagnetic resonance spectra at room temperature show strong coupling with zero field splitting, $D = 134.5$ mT, $g = 2.353$ and 2.159 . Frozen dilute solutions show the characteristic patterns. Detailed analysis and simulation are presented. Electrochemical analysis also confirm strong interaction. Cyclic voltammetric studies show two successive one-electron transfer kinetics.



The notable feature of the structure is that the Schiff base acts as a bidentate ligand (phenolic O- and imine -N=) towards one of the copper ions and binds to the other copper ion through the hetero N-atom.

