Mononuclear Novel Copper(II) Complexes with Dipropylenetriamine/Diamine N₅- Ligands

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Abstract

The coordination chemistry of Cu(II), involving tridentate and bidentate amines ligands, attracted considerable interest due to their chelating properties. Complexes containing the analogous dipropylenetriamine ligand have not received much attention, interestingly no report on the synthesis of copper(II) complexes containing the dipropylenetriamine, along with any daimine is found in literature.Several new mixed-ligand copper(II) complexes, $[Cu(dipn)(N^N)]Br_2$ [dipn = dipropylenetriamine, with several types of diamine N^N have been synthesized as in Scheme1.



These complexes were characterized by spectroscopic and thermal techniques partially. Crystal structure of such complexes showed a distorted trigonal– bipyramidal geometry around Cu(II) ion with one solvate water molecule. Antimicrobial and antiproliferative assays will be conducted to evaluate the biological activities of these complexes.