

# Magnetic and structural properties of $[\text{Cu}(\text{DPA})(\text{Ac})_2] \cdot 2\text{H}_2\text{O}$ (DPA = DI(2-pyridyl)amine)

Atria, Ana Maria

Spodine, Evgenia

Garland, Maria Teresa

Manzur, Jorge

Baggio, Ricardo

Pena, Octavio

The preparation of the copper(II) complex formulated as  $[\text{Cu}(\text{DPA})(\text{Ac})_2] \cdot 2\text{H}_2\text{O}$  is given (DPA: di(2-pyridyl)amine, Ac: acetate). The structure of this complex was determined by single-crystal X-ray analysis. It crystallizes in the triclinic space group P1 with  $a = 7.329(1)$ ,  $b = 10.933(2)$ ,  $c = 11.211(2)$  Å and  $\alpha = 83.48(3)$ ,  $\beta = 76.64(3)$  and  $\gamma = 73.33(3)^\circ$ , and  $Z = 2$ . The complex has a monomeric structure, bridged by water molecules. Each water molecule bonds a second water molecule, which then bonds two molecules of the copper complex by hydrogen bonding through the oxygen atoms of acetate groups. However, the first water molecule is also linked through hydrogen bonds to two complex species, one at the amino group and the other at an acetate group. The configuration geometry of each copper is a distorted octahedron, whose basal plane is formed by two di(2-pyridyl)amine nitrogens ( $\text{Cu-N}(1) = 1.990(2)$ ,  $\text{Cu-N}(3) = 1.981(3)$ ) and two acetate oxygens ( $\text{Cu-O}(3) = 1.970(3)$ ,  $\text{Cu-O}(2) = 1.968(2)$  Å). The apical