

Square Planar Complexes of Cu(II) with an N₂O Donor Set of a New Schiff Base Ligand: Synthesis and Structural Aspects

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The title compounds, [Cu(C₁₆H₂₃N₂O)SCN] (**1**) and [Cu(C₁₆H₂₃N₂O)N₃] (**2**), containing a tridentate Schiff base ligand, which is the 1:1 condensation product of benzoylacetone and 2-diethylaminoethylamine, have been synthesised and their crystal structures determined. The structure of **1** is based on a four coordinate copper centre with square-planar geometry formed by the N₂O donor set of the Schiff base and an N atom of the thiocyanate anion. A similar arrangement occurs in **2** with the N₂O donor set of the Schiff base and an N atom of the azide anion. The Cu-N and Cu-O distances are 1.924(8), 2.073(8), 1.927(9) and 1.910(6) Å, for **1** and 1.960(4), 2.050(4), 1.935(4) and 1.907(3) for **2**, respectively.

Key words: Cu(II) Acetate, Crystal Structure, Spectral and Cyclovoltammetric Studies