

**A novel tetranuclear maze type network having assembly of copper(II), 2,2-dicarboxydiphenylthioether and pyridine:
[Cu₄(C₅H₅N)₈{S(C₆H₄CO₂)₂]₄(H₂O)]·3H₂O**

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Transition metal complexes having supramolecular architecture become very important for the study of metal-metal interaction through suitable bridging ligands. For the synthesis of polymeric compounds in the self-assembly of the transition metal ions with appropriate bridging and chelating ligands were mostly focussed on oligopyridines and its derivatives as connector ligands. Here, we have synthesized a novel macrocyclic copper(II) tetranuclear assembly with 2,2-dicarboxydiphenylthioether as bridging ligand along with pyridine. It has an interesting supramolecular architecture having a two-dimensional steric maze-type network. The complex has a distorted macrocycle which is composed of four copper(II) ions and four 2,2-dicarboxydiphenylthioether ligands for every copper(II) ion; two pyridine molecules are coordinated in the *trans* position as shown in the figure. The tetranuclear macrocyclic structure is centrosymmetric at Cu(1), Cu(2), Cu(1)* and Cu(2)* and extends to infinity along the *C*-axis with the carbonyl group O(6)[C=O] occupying the apical position of Cu(1)* of another macromolecule and O(6)* similarly bonded to Cu(1).

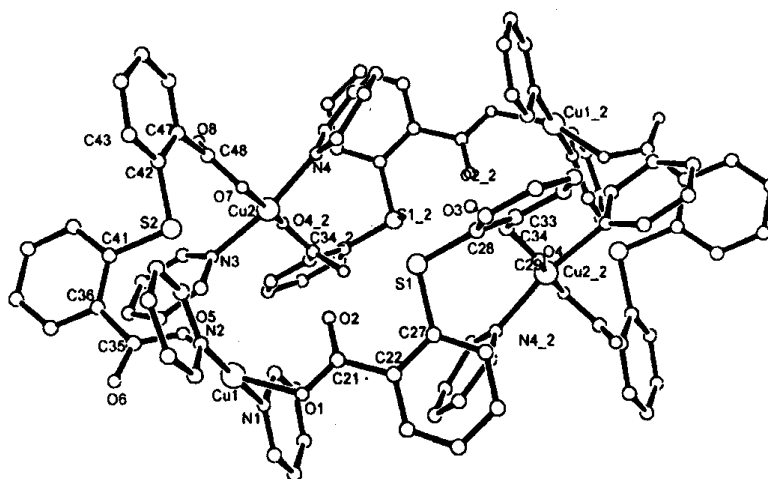


Figure 1. Crystal structure of [Cu₄(C₅H₅N)₈{S(C₆H₄CO₂)₂]₄(H₂O)]·3H₂O