

## SUPRAMOLECULAR ASSEMBLIES OF CU(II) SYSTEMS BASED ON THIOSEMICARBAZONE LIGAND

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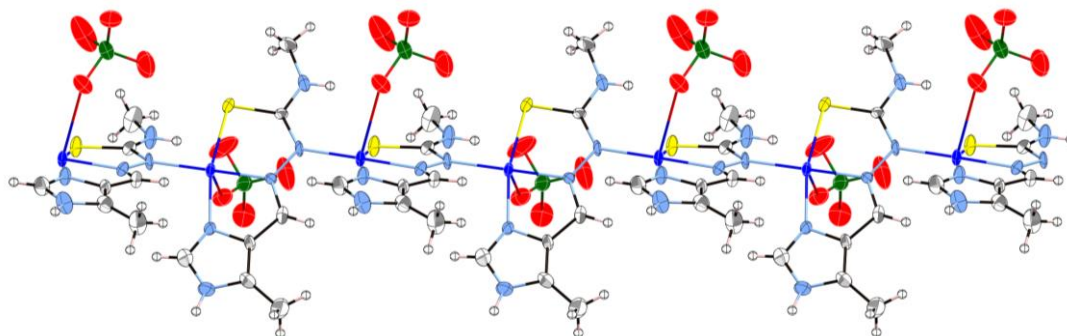
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In memoriam to Prof. Mihail Revenco

The Cu(II) complexes with organic ligand derived from thiosemicarbazide fragment are known as compounds with original analytical, biological and magnetic properties. Coordination compounds of Cu(II) with thiosemicarbazide derivatives ligands are related as mononuclear in [1-3] and binuclear structures in [4].

In this work we show a new type of coordination of the thiosemicarbazide fragment - using the N(2) atom as a linker to obtain supramolecular systems. Firstly this type of assembling was established using salicylaldehyde S-methylisothiosemicarbazone in alkaline medium. Cu(II) complex is coordinated tridentate via ONN donor atoms from thiosemicarbazone. The mononuclear units are assembled in polymer via N(2) atom from neighboring molecule. In the case of imidazol thiosemicarbazone derivatives the reaction was realised between copper(II) perchlorate and HL in ethanol. The crystalline product was separate after three days by filtration, washed with ethanol and dried in vacuum. The X Ray crystallographic analysis shows a polymer structure of the complex similar with previously reported case of salicylaldehyde S-methylisothiosemicarbazone (Figure 1).



**Fig. 1.** ORTEP representation of Cu(II) 1D compound

The Cu(II) complex have pyramidal geometry. In mononuclear unit Cu(II) is coordinate tridentate via NNS donor atoms from thiosemicarbazone, O from perchlorate ion and in the fifth position is the N(2) atom from neighboring molecule. The N(2) atoms plays a role of linker to assemblies supramolecular Cu(II) systems.

### Reference

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