

SOME NEW Cu(II), Co(II) AND Ni(II) COMPLEXES CONTAINING AN ONS DONOR THIOSEMICARBAZONE: SYNTHESIS, CRYSTAL STRUCTURES AND BIOLOGICAL ACTIVITY.

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The coordination chemistry of thiosemicarbazone complexes involving pyrazolone-ring has excited great interest among chemists in recent years due to their applications in catalysis and their relevance to bio-inorganic systems [1- 4]. Complex combinations of Cu(II), Co(II), and Ni(II) with thiosemicarbazone derivatives of 1-phenyl-3-methyl-4-benzoyl-5-pyrazolone 4-R-thiosemicarbazone (where R= CH₃, C₆H₅, C₅H₅N) were synthesized. The new obtained compounds were characterized by ¹H NMR, ¹³C NMR, IR, UV-Vis, EPR spectroscopy, elemental analysis, molar electric conductivity and, magnetic susceptibility. In addition, the structures of the ligands and six complexes has been determined by X-ray diffraction method.

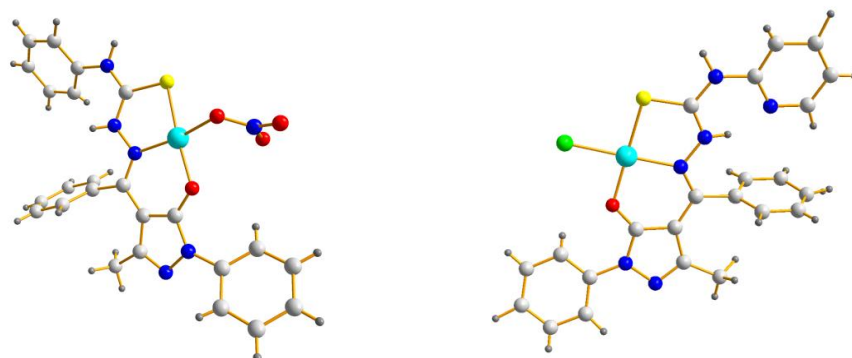


Fig.1. Molecular structures for two complexes of Cu(II).

The ligands and the newly formed complexes were tested for the effects on HL-60 cell proliferation.

References

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