



SDI Review Form 1.6

Journal Name:	<a href="#">Asian Journal of Chemical Sciences</a>
Manuscript Number:	Ms_AJOCS_54206
Title of the Manuscript:	Synthesis, Characterization and Investigation of Antimicrobial Activity of New Schiff Base, 2-(((2-((4-hydroxybenzylidene) amino)ethyl)imino )methyl) phenol and Its Cu(II) and Ni(II) Complexes
Type of the Article	

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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**PART 1: Review Comments**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>Compulsory</b> REVISION comments</p>	<p><b>Introduction</b> In the expression "catalyst for some catalytic reactions" the word catalytic must be removed. In the expression "<math>\pi</math> to <math>\pi^*</math> intermolecular interactions" the <math>\pi</math> to <math>\pi^*</math> must be removed because this is a transition and not a interaction. The expression "The observed values confirmed" must be modified as "The presented data indicated". The sentence "Keeping these facts in view the significance of metal in biology, we here in report the synthesis and characterization of a new Schiff base ligand derived from Salicylaldehyde, ethane-1,2-diamine and 4-Hydroxybenzaldehyde in the ratio (1:1:1)." must be revised because there is no connection between the significance of metal in biology and synthesis and characterization of a new Schiff base.</p> <p><b>Experimental</b> The expression "Schiff base ligands were prepared" must be revised as "Schiff base ligand was prepared" having in view that only one ligand is presented in paper. (Ligand L<sub>3</sub>) must be replaced with (Ligand H<sub>2</sub>L) in order to write complex as [ML] and because is only 1 ligand in paper and not 3. In Scheme 1 the hybridization for all atoms must be respected. Thus the authors can observe that the phenolic group from p-position is divergent oriented and cannot coordinate at the same metal ion together with the other three atoms. The expression "M(L<sub>3</sub>) [Where M = Metal ion]" must be revised as [ML] (M: Cu, Ni). The bacterial source must be presented (i.e. ATCC or other).</p> <p><b>Results and discussion</b> The sentence "This value corresponds to a square planar geometry" must be removed or revised having in view that <b>for Cu(II) complexes all the ground states are orbital undegenerated no mater of stereochemistry and as result the magnetic moment do not offer information concerning stereochemistry!!!!</b> The Ni(II) complex should be diamagnetic. The low value could results from a paramagnetic impurity. The melting points for complexes must be removed from Table 1 having in view that complexes do not melt but decompose at these temperatures. The expression "It was assumed" must be replaced by "It was observed". The sentence "In comparison of the spectra of Schiff base and its metal complexes (Table 2) suggested that Schiff base coordinated to metal ions using three donors indicated that the ligand acted as a bidentate ligand." has no sense. A ligand that use three donors is tridentate and not bidentate. On the other hand the ligand behaves as tetradentate as depicted in Fig. 2. A band at 764 cm<sup>-1</sup> appear in the spectrum of ligand so cannot be assigned for <math>\nu</math>(M-O). I suspect that this band appear around 500 cm<sup>-1</sup> where the ligand do not have. The sentence "The electronic spectra of Cu(II) complex showed absorption bands at 272 nm and 370 nm which may be assigned <math>\pi</math>-<math>\pi^*</math> and <math>n</math>-<math>\pi^*</math> which may be assigned to charge transfer transition." must be revised as "The electronic spectrum of Cu(II) complex showed an absorption band at 272 nm which may be assigned to <math>n</math>-<math>\pi^*</math> transition." Because the same bands cannot be in the same times intraligand and CT. The sentence "The electronic spectra of the Ni(II) complex showed two bands observed at 275 nm and 375 nm which may be assigned to charge transfer transition." must be revised as "The electronic spectrum of Ni(II) complex showed a band at 275 nm which may be assigned to <math>\pi</math>-<math>\pi^*</math> transition." The bands at 365 and 340 nm can be assigned for d-d transitions for a square planar stereochemistry and the corresponding transitions must be discussed accordingly. The structure proposed in Fig. 5 does not respect the hybridization of atoms in organic ligand and can be achieved. It is obvious that the phenolic group from p-position is coordinated as bridge to another metallic ion. The author must verify if a binuclear structure can be developed with respect the hybridization. The yield must be presented at experimental and not at conclusions. And the yield is a value cannot be a</p>	



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<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments	The name of chemical compounds must be written with lowercase in whole paper.  In paper and references appear more typos that must be corrected. The author <b>A. Kirza</b> must be revised as A. Kriza.	

**PART 2:**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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