



SDI Review Form 1.6

Journal Name:	Asian Journal of Applied Chemistry Research
Manuscript Number:	Ms_AJACR_54376
Title of the Manuscript:	Synthesis, Characterization, Antibacterial and Thermal Studies of Cu(II) Complex of Thiophene-2- aldehyde Semicarbazone
Type of the Article	Original Research Article

General guideline for Peer Review process:

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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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>Compulsory REVISION comments</p>	<p>The complex formula must be written as $[\text{CuL}(\text{CH}_3\text{COO})_2(\text{H}_2\text{O})]$ instead of $[\text{CuL}(\text{CH}_3\text{COO})_2 \cdot \text{H}_2\text{O}]$ and revised according with the observations presented below.</p> <p>The sentences "From conductivity studies, we obtained that the copper complex of the ligand, thiophene-2-aldehyde semicarbazone had no ionic properties. This result confirmed the behavior of copper complex as a weak electrolyte from their low value of molar conductivity." Must be removed from abstract because tell the same think and this studies are not so important for complex characterisation. More important are MS studies that are not presented in this part.</p> <p>The ligand is not new, so the authors must provide a reference(s) at its syntheses and must specify what method used in paper was in order to characterise this semicarbazone was not provided in previously paper(s).</p> <p>The program used for 3D structure of Cu(II) complex generation must be provided.</p> <p>The m.p. for complex must be removed from Table 1 having in view that at that temperature complex is already decomposed (see Table 4).</p> <p>The ESI-MS data in Table 2 must be provided with 2 decimals.</p> <p>The elemental data can not suggest that the complex is mononuclear so this sentence must be removed. These data indicate only that the metal to ligand ratio for the complex is 1:1.</p> <p>The sentence "However, the existence of a strong and sharp peak at 1687 cm^{-1} which is related to C=N stretching frequency and another sharp peak at 1718 cm^{-1} assigned to C=O stretching frequency in the spectra of the ligand." is elliptic and must be revised.</p> <p>The acetate anion generates bands around 1600 and 1400 cm^{-1} (asymmetrical and symmetrical stretching vibration of carboxylate) that in comparison with that of sodium acetate give information concerning coordination mode of this anion as authors proposed for complex. As result these bands and not that for -C-C-O and O-C-C must be identified and discussed accordingly.</p> <p>The DTA or DSC curve must be provided together with TGA in Fig. 6. The coordinated water molecule must be identified both in TG and DTA curves and added in Table 4. Otherwise, the water must be removed from the complex formula, the calculation must be revised as well as the stereochemistry. From IR spectrum the unidentate or bidentate nature of acetate must be identified.</p> <p>The final product is only CuO. And I suggest replacing final product by residue.</p> <p>The sentence "From thermal analysis, the properties, nature of intermediates and final products of the thermal decomposition of coordination compounds can be obtained." must be removed considering that in paper data concerning the gas evolved and final product analysis is not provided.</p> <p>The solid state UV-Vis spectra must be provided in order to identify d-d transitions and a proposed stereochemistry.</p> <p>The Fig. 7 duplicates the Table 5 so one must be removed. And the figure does not present statistical data.</p> <p>Some expression must be corrected (see Table at the end)</p>	
<p>Minor REVISION comments</p>		



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Optional/General comments		
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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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