Dear Dr. Franc Perdih,

Thank you for sending us the comments on the manuscript "Synthesis, Crystal Structures, Characterization and Catalytic Property of Copper(II) Complexes Derived from Hydrazone Ligands".

We have revised the manuscript in accord with the suggestions. The response are listed as follows.

We are looking forward to your response.

Best regards,

Dr. Yan Lei, and Dr. Yao Tan

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1. Introduction part is poorly written. The reference 2e is not belonging to a hydrazone compound at all. It should be rewritten by mentioning the uniqueness of the work with proper references in this relevant area.

Response by the authors: The introduction part is rewritten as suggested. The reference 2e related to Schiff base complexes is omitted.

2. The significance of the synthesized compounds and the work are not mentioned. The synthesized ligands are similar to the reported one in the journal, Polyhedron 2014, 80, 166-172.

Response by the authors: The significance of the synthesized compounds and the work are mentioned. The reported paper is cited.

3. The crystal structure and the elemental analysis of the complex 1 show that there is no deprotonation in the ligand during the complexation. But the complex is expressed as [CuL1Br2]•0.25H2O. It is not correct.

Response by the authors: The molecule of complex 1 is corrected to [Cu(HL1)Br2]•0.25H2O.

4. For the synthesis of complexes, bromide is used in one case whereas perchlorate salt is used in another case. Why is it so?

Response by the authors: We have tried to use copper acetate, copper nitrate, copper chloride, copper bromide, and copper perchlorate, to prepare the complexes with these ligands. Fortunately, only the copper bromide can form single crystal of 1, and copper perchlorate can form single crystal of complex 2. The other copper salts cannot form well shaped single crystals of the complexes.

5. The range of IR bands for the individual compounds should be mentioned in the experimental part.

Response by the authors: The range of IR bands for the individual compounds is mentioned in the experimental part.

6. In UV - vis spectra, Is there no charge transfer? The d-d transitions of the complexes are also not discussed. The UV-vis spectral data of each compound should also be included in the experimental part.

Response by the authors: In UV - vis spectra, the d-d transitions of the complexes are mentioned. The UV-vis spectral data of each compound are included in the experimental part.

7. Although single crystal XRDs are given, the formation of the complexes could be justified by using the IR and UV-vis spectra. It could be better to present the EPR spectrum of at least one of the mononuclear copper complex. This portion should be completely rewritten.

Response by the authors: It is really a good idea. But, I am so sorry that we have not an EPR instrument to determine the data.

8. In the catalysis, both the substrate and the oxidant were taken in 1:1 mole ratio. Is it so?

Response by the authors: Yes, the substrate and the oxidant were in 1:1 mole ratio.

9. There are lots of homogeneous and heterogeneous catalysts reported for the epoxidation of styrene with much better yield. Moreover, in this work the catalyst, substrate mole ratio is just 1:20. It reveals that the catalytic activity of the complex is not so good. Hence, the authors should

defend the uniqueness of the catalyst and their work.

Response by the authors: It is true that the catalytic activity of the complexes is not so good. This is a fundamental study, and it reports two new structures of copper complexes. This paper can give readers some information about the catalytic activity of such complexes, and hope to provide idea for the further preparation of new and more active complexes.

10. The result shows that the catalytic efficiency of complex 1 is higher than complex 2. The p-substituent of the benzohydrazide and the copper salt, used for the synthesis of complexes, are differed in the two cases. Hence, there is no meaning in the comparison.

Response by the authors: The sentence about the comparison is omitted.

11. In Table-4, it should be mentioned that the numbers 1 and 2 in the middle row denote the complexes.

Response by the authors: Table 4 has been reformed to show clearly the results.

12. The potential safety measures for the usage of the perchlorate salt should be mentioned in the manuscript.

Response by the authors: The safety information is mentioned.