Dear Dr. Miloš Đuran,

We are submitting updated version of our article, which has been modified according to comments of Reviewers. Our replies are given below. Taking this occasion, we looked again across the text removing some errors and making more clear expressions. We do hope that presented version will satisfy the reviewers and will be accepted for publishing.

With kind regards,

Dr. Tatiana Lastovina

**Replies to Reviewer B:**

*1. First of all, authors should emphasis what is new and important point of this research. There have been many reports about the synthesis of copper and copper oxide nanoparticles. What is the advantage of the presented methods? I recommend authors to compare this research and previous ones.*

We agree with Reviewer. We introduced to the text the following sentences (marked with Bold). We also added news paragraphs after Fig. 4 (not copied here to save the space), where we compare our results with those from literature. Also, some references were added.

“**We found only a few examples where different oxides of copper were produced from a copper complex, containing different ligands.** The first to mention is copper dimethylglyoximate complex, employed by W. Zhang et al.(*24*) to produce hydrothermally Cu2O microcrystals, then motivating D. Purkayastha *et al*.(*8*)to use bis(dimethylglyoximato)copper(II) complex for the synthesis of 28.9 nm (by XRD) CuO NPs by thermal decomposition at 220 °C. Cationic copper(II) Schiff base complexes is another family to note, referring to recent report of S.Y. Ebrahimipour *et al.*(*25*)where CuO NPs of 23 nm size (by XRD) were obtained by calcination at 600 °C for 2 h in air of a novel [Cu(L)(H2O)]NO3] complex (ligand HL = (E)-N´-((2-hydroxynaphthalen-1-yl)methylene)acetohydrazide). **There are no systematic studies so far where the same copper complex would be used to produce a variety of copper based NPs by using several synthetic methods.**”

2. *I suggest authors not to use the term “****small****” nanoparticles for the dimensions less than 100 nm, since it is usually used to express nanoparticles whose dimensions are smaller than the mean free path of the conduction electrons, i.e., ≤ 20 nm.*

We agree with Reviewer. We removed this term from the text.

3. *Abbreviation (****SM*** *or* ***ESI****) for Supplementary Material should be the same throughout the text.*

We agree with Reviewer. We use only **SM** abbreviation.

4. *The authors should check the mistakes throughout the manuscript, carefully. Some gramma errors need to be corrected. For example,* ***line*** *70 of page 3, “In the present study work we characterize the set of NPs produced by three different methods: (1) solvothermal and (2) microwave-assisted (MW-assisted) polyol syntheses, and (3) wet-synthesis borohydride. The dry products are stable and could be dispersed again in various solvents.“ should be “In the present study we were characterized the set of NPs produced by three different methods: (1) solvothermal, (2) microwave-assisted (MW-assisted) polyol synthesis, and (3) wet-synthesis by borohydride. The dry products are stable and could be dispersed again in the various solvents.“*

We agree with Reviewer. We changed the sentence to the following one:

“In this study, copper based NPs were prepared from [Cu(CH3COO)2(bpy)] complex by two high temperature methods ‒ solvothermal and microwave-assisted (MW-assisted) and room temperature one ‒ borohydride reduction. Presence of bipyridine ligand in the copper complex would impose no need in additional stabilization, while the fast MW-heating or the strong reducing agent allowing to speed up the synthesis running without inert atmosphere.”

5. ***Figure 1****: Characteristic reflexes from nanoparticles cannot be seen clearly.*

We agree with Reviewer. We re-designed the Figure (now it is Figure 2).

6. ***Figure caption, Figure 3:*** *“DRUV-Vis spectra of CuO (black), Сu/Cu2O (grey) and Cu2O/СuO (light* grey) NPs presented in reflectance (a) and absorbance (b) values versus energy of photons.“ should be “DRUV-Vis spectra of CuO (black), Сu/Cu2O (grey) and Cu2O/СuO (light grey) NPs presented in reflectance (a) and absorbance (b) values versus wavelength and energy of photons, respectively.“

We agree with Reviewer. We made respective changes.

7. ***Supplementary Material: Line 142****, authors stated: ”The same spectra were also converted in Kubelka-Munk values and presented in Fig. S8b as a function of wave numbers“ The* ***Figure S8b*** *presents optical density versus photon energy, not optical density versus wave numbers.* ***Figure caption (Figure S8b)*** *correction is also needed.*

We agree with Reviewer. We made respective changes.

8. *At the end, I think that the following title would be better for this manuscript: “Copper based nanoparticles prepared from copper (II) acetate bipyridine complex”, since the authors did not obtain bare copper nanoparticles than CuO, Cu/Cu2O and Cu2O/CuO nanoparticles.*

We agree with Reviewer and accepted the proposed title.

**Replies to Reviewer C:**

1. *Is there any potential application of synthesized materials that authors should provide?*

We addressed this question replying to point 1 of Reviewer B.

2. *Are there any reaction conditions which give a possibility to synthesize pure phases of Cu, Cu2O and CuO by mentioned methods?*

We prepared pure CuO phase by solvothermal method. MW-assisted polyol synthesis allows preparing copper NPs with small content of copper(I) oxide. Also we carried out MW-assisted polyol synthesis in argon atmosphere having the same result. So, additional investigations are needed to answer your question properly, but it is beyond of the scope of this paper.

3. *The authors have to move FTIR study from supplementary info to manuscript and explain changes in FTIR spectra in detail.*

We agree with Reviewer. We moved FTIR and UV-Vis spectra of synthesized [CuAc2(bpy)] complex from Supplementary materials to manuscript (now it is Figure 1).