



SDI Review Form 1.6

Journal Name:	Asian Journal of Biotechnology and Bioresource Technology
Manuscript Number:	Ms_AJB2T_39126
Title of the Manuscript:	GREEN SYNTHESIS OF COPPER NANOPARTICLES USING MANDARIN (Citrus reticulata) PEEL EXTRACT AND ANTIFUNGAL STUDY
Type of the Article	Original Research 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)
Compulsory REVISION comments	<p>My comments about the manuscript entitled as “GREEN SYNTHESIS OF COPPER NANOPARTICLES USING MANDARIN (<i>Citrus reticulata</i>) PEEL EXTRACT AND ANTIFUNGAL STUDY”</p> <ol style="list-style-type: none"> 1. There are many reports on the synthesis of copper nanoparticles (NPs) using different variety of citrus. Hence, what is the unique in this work when compared to the reported one? Moreover, the authors have used PVA during the synthesis so it's an external capping agent. Hence this work is not a biosynthesised one which deals purely with the phytochemicals. Do they experienced any difficulties with the addition of extract and the precursor in order to get CuNPs? 2. If they want to examine the effect of temperature and pH they have to use the range of values. What would be happened if they increase or decrease the temperature and pH of the medium? There is a controversy in the manuscript regarding the temperature either 60 or 80° C. What is the pH of the extract and the reaction mixture? 3. What 1000 ppm and mandarin peel/ Cu²⁺ (2:1v/v), Cu²⁺/PVA (1/10w/w) indicates? 4. The quality of the language is not good and so may typo errors throughout the manuscript. 5. “Biologically” term is a wrong one here and UV-Visible absorption spectroscopy is not meant for the morphological studies. 6. Copper sulfate is not an ideal one to compare the antifungal activity. Author should use the commercial antifungal agent or CuNPs with different size. 7. There is not much citation of the articles throughout the manuscript. There supposed to be a reference which indicates the presence of ascorbic acid in the extract. 8. In materials section, the botanical name of the fruit should be written in the bracket. Name of the fungus should be written in a scientific way. 9. Dose they observe the same color change with the addition of NaOH into Cu Sulfate solution. The author should have to report the blank experiments. They haven't explain the role of PVA in the manuscript. The color of the peel extract is look like stored. 10. The visual observation of the color change has reported in the experimental part. Hence it should not be repeated in the characterization part. A single title would be fine and no need of subheading in the characterization part. 11. They have written as “scavenging ability of OH group important for the synthesis” and “The antioxidant property of polyphenolic compounds is mainly due to its redox property which allows them to act as reducing agents” Explain How? 12. “Pharmacognostic evaluation of synthesized copper nanoparticles”, The title doesn't match with the work. The authors have observed the activity of the particles for 3 days. Hence periodic observation should be reported. 13. There are many unwanted literature reports in the discussion part about the synthesis. It may go to the introduction section. 14. I couldn't see any dispersed particles in SEM. The size if the particles mentioned inside are not acceptable one, if you have considered about the scale bar in the image. TEM, SEM and DLS data are controversial. 15. The final color of the nanoparticles are not in a blue color. The table 2 is not at all required. 16. By seeing UV-Visible absorption spectra, at 0 h it-self there is an absorption peak. What does it mean and where it is from? What is the reason behind the decrease in the absorption intensity and shift in the peak position during the course of the reaction? There is a controversy in the absorption position of CuNPs in the manuscript (575 nm or 560 nm?). 17. “The effect of ascorbic acid concentration on the UV – Visible absorption spectroscopy of synthesized CuNps is shown in Figure 4” which is not acceptable one. The extract is a mixture of phytochemicals. 18. There is a difference in the activity of the NPs towards <i>Corticium salmonicola</i> .Berk and <i>Phanerochaete salminicolor</i>. Explain the reason and mechanism? How effective the antifungal activity of the particle with the reported one? Did they observe the antifungal activity of PVA? 19. Antimicrobial assay is not clear. The references are not orderly written. 	
Minor REVISION comments		
Optional/General comments		

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