

Review of: "Yerba Mate as a Co-Precursor in the Synthesis of Silica Through the Sol-Gel Technique"

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Potential competing interests: No potential competing interests to declare.

Review points

- 1) The abstract may be extended with a bit of further research work, for example, a sentence or two on potential applications. Also, do not type the abbreviation **FTIR** in the abstract; instead, type the whole name **Fourier transform infrared** (FTIR) spectroscopy. This can be initially expressed in the introduction, followed by the abbreviation, so that the paper has a consistent flow.
- 2) Interesting introduction to the topic of the circular economy and to the experimental section. However, I would like to see a bit more references added to the said experiments and the application of these works – potentially from recently published works, especially now that we continue to talk about sustainable products, greenhouse gas emissions, green chemistry, global warming, biomaterials, etc.
- 3) As mentioned earlier, try not to write the abbreviations in the first instance right throughout the whole paper; start with the full name/term followed by the abbreviations so that the paper has a good flow and consistency. For example, what is TEOS (do not assume the reader automatically knows even if it is the most obvious/common chemical that is used)? In the experimental section, it would be best to provide the full name of the chemical followed by the abbreviation. Also, it would be better to suggest where and how they were obtained for the experiment; the source is important.
- 4) Good analysis of FTIR spectroscopic data, but I would prefer a bit more fine-tuning than the stated broad ranges. For example, the carbonyl group range from 1540- 1800 cm^{-1} does not mean much unless you can pick the relevant peak; try not to be ambiguous. Ambiguity suggests the work is inconsistent. This may also suggest that more characterization techniques should be used to support the previously obtained FTIR data. Further referencing to similar works may be used to support the experimental data too.
- 5) In conclusion, this work seemed to be sufficient for a conference presentation (perhaps 5/10 for the effort and interest), and I would suggest the author to go through each section carefully and redo the paper to make a more comprehensive piece of research work that will have a higher impact in the said field.