

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.

This work is entitled "Yerba Mate as a Co-Precursor in the Synthesis of Silica through Sol-Gel Technique."

The term co-precursor is not relevant; it is an additive, and it is at least partially included in the resulting silica matrix, as would presumably be any other solid particles present at the beginning of the sol-gel process.

This work does not provide any information on the properties of the silica induced by the specific additive "yerba mate": porosity, structuration, specific adsorption of solutes...it only states that a solid silica including some organic inclusion has been obtained.

The use that could be made of such a solid, and consequently the goal of its synthesis, is not clear at all.

In the abstract, "the photographic monitoring... made it possible..." is surreal, not only considering the poor quality of the photo provided, but also considering that we are in 2024...do we really take pictures in 2024 to control the degree of solidification?

Moreover, this work suffers from some formal/writing defaults:

- Blurred photos of a beaker containing a solid don't bring any information.
- SYMc is not defined.
- Last sentence of the experimental: "different physicochemical and electronic characterization..." In fact, this paper only reports a blurred FTIR spectrum and its comments.
- The attribution of bands on the FTIR spectrum seems to be made with the eyes of faith: the band at 2250 cm^{-1} and the band at 3778 cm^{-1} ("not shown") are discussed, whereas nobody can see them.

As a conclusion, in its current state, this work is not worth publishing, whatever the media.