

Review of: "Techno-Economic Fermentative Microbe-Based Industrial Production of Lactic Acid (LA): Potential Future Prospects and Constraints"

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Potential competing interests: No potential competing interests to declare.

This is a good paper but needs a few things for improvement.

Title: this doesn't accurately describe the paper, so changing this would improve it.

Abstract: The contents of this are good, but this could benefit from restructuring. Starting with the substrate and its benefits and uses.

Graphical abstract: This is good, it doesn't show any processing decisions so implies there is only one process employed for every step. If this is an example of a specific bioprocess that should be identified.

Highlights: this utilises an acronym that has not been explained

Introduction: the beginning of the second paragraph is unclear it seems to say both Brazil and Pakistan lead in production. "Plants primarily use lignocellulose, cellulose derivatives, lignin, pectin, and ash" I am unsure what this sentence means.

This section also could benefit from restructuring as it is not clear what it is trying to convey (to me). "they are transformed into novel chemical objects with numerous commercial applications. Lactic Acid (LA) is primarily found in the "L (+)" assimilative form. Microbial fermentation is the dominant industrial application, producing pure LA and D (-) compounds"

I think LCB also needs definition

Section 2-4 are all good.

Section 5. Should be Microbe based not Microbes?

The rest is good, but the bulk of the work is Technical assessment, there is limited economic assessment which is why the paper would benefit from a "focus change" which would start with a title change