

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.

The study also explores pretreatment, saccharification, and fermentation techniques for industrial and lab-scale lactic acid production.

Comments

In the abstract must be indicated the conclusion of the review i.e which are the most important biochemical advances. At least one solution, and the best pretreatment, saccharification and fermentation technique for acid lactic production. Here you can indicate the SCB abbreviation (to help understand the highlights)

In general, there is not a clear conducted line to understand the objective of the review. There are very general statements that do not provide the essentials of the studies. i.e. " a study reported exploring fermentative lactic acid production using corn stover feedstocks to reduce petroleum dependence, overcoming challenges such as lignin separation and complex broth composition" That is very general . The importance would be how they deal with the challenges such as lignin separation.

Schematic description. It is better to start with the sugar stalks as an initial point. There is no clear the applications of what? Lactic acid or pretreated bagasse? Maybe an indication of acid lactic microorganisms would help.

Highlights

The third and four do not seem to be relevant of the review.

Introduction

Define SCB

I will start the introduction with "Biomass, the organic matter found in all living species, ... Lignin is a major constituent, accounting for 60%."

There is no clear why talk about corn stover.

Define DES, SSCF and SSF

Why talk about biological detoxification?

In section 3. You talk about biodetoxification ?

When use a scientific name for a species, give the complete name of it i.e *B. coagulans*

Conclusion

The focus of the study is on lactic acid production techniques at industrial and laboratory scale, however, in the conclusion it highlights the importance of sugarcane biorefinery as a favorable theory and potential speculation. Therefore, it deviates from the initial objective. It is suggested to focus the conclusion on the initial objective.