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.

Review for

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

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Sugarcane bagasse, as lignocellulosic biomass encompassing sixty percent carbohydrates, is a substantial waste and a renewable source of fermentable sugars.

Part 2 is too short

2. Biomass Recalcitrance and Carbohydrate Recovery

A lot has still to be done (examples below)

Ionic liquid and diluted sulfuric acid combinatorial pretreatment for efficient sugarcane bagasse conversion to L-lactic acid

Qureshi, A.S., Ji, X., Khushk, I., ...Tunio, A.A., Huang, Y.

Industrial Crops and Products, 2023, 204, 117272

Application of Aromatic Ring Quaternary Ammonium and Phosphonium Salts–Carboxylic Acids-Based Deep Eutectic Solvent for Enhanced Sugarcane Bagasse Pretreatment, Enzymatic Hydrolysis, and Cellulosic Ethanol Production

Li, B., Qiu, Z., Huang, J., ...Zheng, X., Lin, X.

Fermentation, 2023, 9(11), 981

Lactic Acid Production from Steam-Exploded Sugarcane Bagasse Using Bacillus coagulans DSM2314

Alves, W.R., da Silva, T.A., Zandoná Filho, A., Pereira Ramos, L.

Fermentation, 2023, 9(9), 789

LCA part is missing

(Life Cycle Assessment)

Only present in one reference

54. ^*Munagala, M., Shastri, Y., Nalawade, K., Konde, K., & Patil, S. (2021). Life cycle and economic assessment of sugarcane bagasse valorization to lactic acid. Waste Management, 126, 52–64. https://doi.org/10.1016/j.wasman.2021.02.052.*

Other references :

Life Cycle Assessment of Sugarcane Biorefinery Complex in the Indian Context

Munagala, M., Shastri, Y.

Environmental Science and Engineering, 2023, pp. 227–236

Techno-economic and environmental assessment of polylactic acid production integrated with the sugarcane value chain

Bressanin, J.M., Sampaio, I.L.D.M., Geraldo, V.C., ...Filho, R.M., Cavalett, O.

Sustainable Production and Consumption, 2022, 34, pp. 244–256

Sustainable valorization of sugarcane residues: Efficient deconstruction strategies for fuels and chemicals production

Reena, R., Alphy, M.P., Reshmy, R., ...Sindhu, R., Binod, P.

Bioresource Technology, 2022, 361, 127759