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Review

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Title

Multilateral approach on enhancing economic viability of lipid production from microalgae:
A review

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Abstract

Microalgae have been rising as a feedstock for biofuel in response to the energy crisis. Due to a high lipid content, composed of fatty acids favorable for the biodiesel production, microalgae are still being investigated as an alternative to biodiesel. Environmental factors and process conditions can alternate the quality and the quantity of lipid produced by microalgae, which can be critical for the overall production of biodiesel. To maximize both the lipid content and the biomass productivity, it is necessary to start with robust algal strains and optimal physio-chemical properties of the culture environment in combination with a novel culture system. These accumulative approaches for cost reduction can take algal process one step closer in achieving the economic feasibility.

Keywords

Microalgae

Photobioreactor

Mass cultivation

Lipid productivity

Economic feasibility

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