

Evaluation of downstream process for the microalgal biodiesel production

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The finite availability of fossil fuels gives rise to international tensions amongst countries and leads to an unstable demand and supply chain of fossil fuels. In addition, environmental damages due to the irresponsible industrialization and the increase of carbon dioxide emissions are responsible for numerous environmental issues. One of the most prominent solutions to these problems is the production of biodiesel from microalgae. However, there is an important issue which is about the economics. In this study, we combined several existing technologies for downstream process including harvesting, extraction, and conversion and evaluated each pathway to find the most feasible downstream process pathway. This study would contribute to find a bottleneck step and suggest an optimized production process which makes microalgal biodiesel economically feasible.