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Sustainable process development for large scale production of biocrude oil by hydrothermal liquefaction of microalgae coupled with CO₂ sequestration

The continuous and rapid depletion of convention fuel sources, with its increasing demand in the society, had a definite impact on people's search for alternative energy sources. In this scenario, microalgae based biofuel generation came up with promising outcomes. Nevertheless, the economic sustainability of biocrude-oil production system is largely dependent on careful and stepwise implementation of process engineering strategies. Our aim is to develop novel process strategies for synchronised cultivation of microalgae with efficient utilization CO₂ rich flue gas and direct conversion of wet biomass to biocrude oil.