

Biocrude Potential Assessment of Macroalgae for Sustainable Biofuel Production



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Abstract Biofuel are commonly regarded as sustainable renewable fuels and are offers a feasible solution for social and economic development. Within the biofuel source, macroalgae are quickly becoming a typical contender as a possible third-generation fuel source due to ease of cultivation and fast growth rates. It is the most excellent bioenergy alternative that overcomes the downsides of first- and second-generation biofuels. Macroalgae based biocrude oil through Hydrothermal liquefaction (HTL) is a promising pathway for sustainable biofuel production. This study aims to compare the biochemical composition of 15 different species collected from various literature sources. The biocrude potential from different species are estimated and compared. The results suggested that green seaweed *U. luctuca* (16.81%) contain the highest percentage of biocrude content. This indicates the macroalgae as a promising feedstock for biofuels, bio-chemicals and other bio-products.

Keywords Seaweed · Biocrude yield · Biomass · Biofuels

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