

Lipid extraction from scenedesmus microalgae for biodiesel production using various extraction methods

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In the present study, lipid extractions from scenedesmus sp. using hot compressed hexane, conventional organic solvents and supercritical carbondioxide were performed to obtain the biodiesel convertible fraction. The effects of parameters affecting the extraction yield were studied, and FAME yields of extracted lipids were compared to determine the efficient extraction method. Results showed that the highest lipid and FAME yield were acquired using hot compressed hexane, indicating that supercritical hexane is an effective extraction medium to obtain lipid from microalgae in terms of shorter extraction time and higher yield.