Characterization of Hydrothermal Liquefaction Product Fractions from Lipid Extracted Algae of *Tetraselmis* sp



Bioenergy from microalgae could replace fossil energy and reduces its greenhouse gas emissions. Currently, researches of production liquid fuels from microalge are focused on just using lipid fraction in biomass. Hydrothermal liquefaction (HTL), one of thermochemical conversion process, could directly convert the solid organic compounds to liquid fuel. On the HTL process, lipid extracted algae (LEA) has potential for biofuel feedstock. LEA HTL of *Tetraselmis* sp. were invested at 350 for 60 min, using a batch type reactor. The four different product fractions (gas, biocrude, aqueous phase, and solid) were quantified and analyzed. We estimate the heating value of the biocrude to be about 33.4 MJ/kg. Weight biocrude yield were 36.3% and 67.6% of energy were returned from LEA feedstock. Major compounds in biocrude were heterocyclic N-containing compounds.