Optimization of wet biomass in-situ transesterification using KRS 101

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Biodiesel produced from microalgae has been suggested as one of promising carbon neutral energy sources. Besides, microalgae is efficient biofuel resource than other crops or plants due to its high lipid contents. Extracting biodiesel from microalgae is extremely efficient way of gaining biofuel because of its high biomass productivity from fast growing rate. To promote lipid productivity from microalgae, it is important to optimize extraction and conversion procedure.
Regarding transesterification of microalgae, in-situ transesterification of wet biomass has great advantage that it could unify many continuous procedures in a single step through combining processes like drying, extraction and transesterification. To optimize direct transesterification under ambient conditions, alkaline catalyst was used. This direct transesterification of wet biomass using alkaline catalyst is simple procedure which is proper for producing biodiesel under mild conditions.