Comparison of different alcohols for in situ transesterification of wet microalgal biomass

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In situ transesterification of wet microalgal slurry is a promising method for the production of biodiesel from microalgae, as it does not require additional energy intensive extraction or drying process. The short chain alcohols such as methanol and ethanol are most promising for the production of biodiesel. The transesterification of wet *Nannochloropsis salina* with methanol and ethanol were investigated under various reaction parameters, such as reaction time, temperature, amount of catalyst, and cell moisture contents were the main factors. The Fatty acid acyl ester (FAAE) from the resulting reaction were quantified and characterized using GC and FTIR. Methanol showed higher conversion efficiency at lower temperatures compared to ethanol.