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Biodiesel production from microbial granules in sequencing batch reactor

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Abstract: Effect of reaction variables of *in situ* transesterification on the biodiesel production, and the characteristic differences of biodiesel obtained from aerobic granular sludge (AG) and algae-bacteria granular consortia (AAG) were investigated. The results indicated that the effect of variables on the biodiesel yield decreased in the order of methanol quantity > catalyst concentration > reaction time, yet the parameters change will not significantly affect biodiesel properties. The maximum biodiesel yield of AAG was 66.21 ± 1.08 mg/g SS, what is significant higher than that of AG (35.44 ± 0.92 mg/g SS). Although methyl palmitate was the dominated composition of biodiesel obtained from both granules, poly-unsaturated fatty acid in

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