

Biodiesel production by enzymatic process using various oils

이자현, 김승욱^{1,*}, 김성봉, 강성우, 장우인²
고려대학교; ¹고려대학교 화공생명공학과; ²호남석유화학
(kimsu@korea.ac.kr*)

In this study, biodiesel production were investigated by enzymatic catalysts using various oils. In case of enzymatic process optimal conditions such as temperature, agitation speed, water contents and enzyme concentration were determined to be 45°C, 250rpm, 10% of water and 20% of immobilized lipases. Jatropha oil, Fried oil, and Dark oil were used as substrates for biodiesel production. Jatropha and Fried oil showed more than 90 % conversion rate within 4 h. However, convertible fatty acid in the dark oil was 58 %. So, conversion from dark oil to biodiesel reached just 50 % after 4 h.