

은 각각 18.2 ° Brix와 14.93%로 가장 높게 나타났다. 총 페놀성 화합물은 143.77mg%인 B 제품이 가장 높게 분석되었으며 복분자 리큐르는 93.03mg%로 나타났고 전자공여능은 복분자 리큐르가 77%로 다른 제품(A, B, C)보다 가장 높게 분석되었다. 유리당 분석에서 복분자 리큐르와 A 제품은 glucose가 가장 높게 분석되었으며 fructose 함량은 A와 B 제품이 높게 나타났으며 galactose는 41.5mg%로 B 제품에서만 분석되었다. 알콜성분 비교 분석결과, acetaldehyde은 A 제품을 제외한 모든 복분자주에서 나타났으며 methanol은 C 제품이 47.25ppm으로 가장 낮게 분석되었고 iso-propanol은 복분자 리큐르와 B 제품만 나타났으며 n-propanol은 복분자 리큐르에서만 검출되었고 iso-amylalcohol은 복분자 리큐르를 제외한 A, B 및 C 제품에서 모두 분석되었다. 이상과 같은 차이는 원료, 주류의 제조방법에 따른 것으로 나타났다.

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Enzymatic Production of Structured Lipids from Capric Acid and Conjugated Linoleic Acid in Soybean Oil

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In this study, medium-chain fatty acid (MCFA) metabolized in the liver for quick energy and CLA exhibited biological activity were used for synthesis of structured lipids (SLs). SLs were synthesized by acidolysis of soybean oil, capric acid (C10:0) and CLA with *Chirazyme*[®] L-2 lipase as biocatalysts. The effect of enzyme load (2, 4, 6, 8, 10% w/w substrates) was investigated. Production of SL (scale-up) was performed with a 1:2:2 molar ratio (oil/C10:0/CLA) for 24 h at 55°C in a stirred batch reactor (420 rpm). The reaction was catalyzed by *Chirazyme*[®] L-2 lipase (24.48g, 4% w/w substrates). The scale-up result showed that capric acid and total CLA were incorporated 4.9%, 4.1% (mole%), respectively, in soybean oil. Then, physio-chemical property and flavor characteristic of produced SL-soybean oil were analyzed. Therefore, SL-soybean oil containing C10:0 and CLA was successfully synthesized and may be beneficial in desirable food and nutritional applications.

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Lipase-catalyzed Transesterification of Corn Oil, Conjugated Linoleic Acid, and Capric Acid in Batch Type Reactor

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Structured lipids (SLs) are defined as triacylglycerols to change the fatty acid composition in the glycerol