medium chain fatty acids (MCFAs) are a rapid energy source for human. In this study, we produced the β-sitosterol esters from CLA and MCFAs using various lipases as catalysts. Among lipases, AYS (from *Candida rugosa*) was the most effective for synthesis of β-sitosterol esters in the presence of water (24.35% conversion) or hexane (25.33% conversion). The second esterification extent was obtained by lipase AK (from *Pseudomonas sp*), showing 10.26% conversion in water and 15.94% conversion in hexane, respectively. The reaction condition was 1:3 molar ratio (β-sitosterol:fatty acid, 1:3) and stirred (175 rpm) at 55℃ in water bath shaker for 48h.

[P-14]

The Study of Identification for Blended Sesame Oil by Metal Oxide type Electronic Nose

Jung-Ah Shin and Ki-Teak Lee*
Department of Food Science and Technology, Chungnam National University

This study was performed to develop the precise and rapid method to distinguish the blended sesame oil through the electronic nose analysis. The sesame oil was blended with corn oil at the ratio of 95:5, 90:10, 80:20(w/w), respectively. Samples were then analyzed by gas chromatography, SPME-GC/MS and the electronic nose composed of 12 metal oxide sensors. The sensetivities(delta Rgas/Rair) of sensors by electronic nose was carried out with principal component analysis(PCA). The proportion of first principal component showed 98.76%. In this study, the electronic nose analysis could be used as a competent method to classify for genuine sesame oil.

[P-15]

배 품종별 생장시기에 따른 이화학적 특성

장 선*, 나창수[1], 은종방
전남대학교 농업생명과학대학 응용생물공학부, [1]동신대학교 한의학과

배 폐과를 효율적으로 활용하여 식품소재나 이를 이용한 기능성식품 개발을 위하여 배 품종별 생장시기에 따른 이화학적 특성을 조사하였다. 나주 지역에서 생산한 풍수, 신고, 추황 등 3품종을 시료로 하여 생장시기에 따라 배 무게의 증가를 관찰하였고 표면의 착색도는 Hunter 색차계로 L, a, b값을 측정하였으며 수분함량은 상압가열건조법으로 측정하였다. pH와 가용성 고형물은 각각 pH meter와 refractometer로, 총산은 적정법으로 측정하여 citric acid로 나타내었다. 총당은 phenol-황