

Catalytic Interesterification of Different Oils and Fats Using Lipozyme TL IM

Yousef Fazli^{a*}, parisa Kermani^a

^a*Department of Chemistry, Faculty of Science, Islamic Azad University, Arak Branch, Arak, Iran*

Lipozyme TL IM was employed to catalyze the interesterification reaction for different oils and fats (sunflower, soybean, corn, canola, palm super olein, palm olein and palm oil) at 70°C. SFC at 0°C for oils and SFC at 0, 10, 20, 30 and 40°C for fats were measured. Thermal behavior of the oils and fats by DSC instrument were used to monitor reaction progress. The SFC of the liquid oils increased at 0°C and SFC of the palm and palm olein decreased at 0 and 10°C and increased at 20, 30 and 40°C. The SFC of palm super olein increased at all temperatures. Results from DSC showed a shift in peak in soybean, corn and sunflower oils, shifting and creation of new peaks in cottonseed and palm super olein, shifting in peaks of palm and palm olein.

KEY WORDS: DSC analysis, SFC, Sunflower, Soybean, Corn, Palm, Palm Olein, palm super olein and cottonseed Interesterification.