

## **Enzymatic hydrolysis of palm olein with mycelium-bound lipase of *Aspergillus flavus* Link**

### **ABSTRACT**

Hydrolysis of palm olein was studied using mycelium-bound lipase of *Aspergillus flavus* Link. The fatty acid composition, triacylglycerol profile and melting properties of the palm olein before and after 72 h hydrolysis were compared. A slight decrease of palmitic acid and increase in oleic acid and linolenic acid concentrations in palm olein was noted. The relative concentration of triunsaturated triacylglycerol, low melting glycerides, such as trioleoyl glycerol, oleoyl-dilinoleoyl glycerol and dioleoyl-linoleoyl glycerol of modified palm olein was increased while the relative concentration of high melting glycerides e.g. dipalmitoyl-oleoyl glycerol and palmitoyl-oleoyl-steroyl glycerol was decreased except for tripalmitoyl glycerol. The melting range of modified palm olein tends to be broad, that is it starts melting (X1) at -28°C and totally melted (X2) at 45°C.

**Keyword:** *Aspergillus flavus* lipase; High melting glycerides; Low melting glycerides; Hydrolysis