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題名 ; Efficient Production of Structured Lipids by Lipase Reaction

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We can make functional structure lipids by using lipase catalyzed interesterification because lipase has position specificity of esterification. It can be conducted at normal temperature and pressure, so deterioration of reactants can be reduced and side reaction can be controlled. On the other hand, lipase catalyzed interesterification has a lot of problems. One of the major problems is its high cost. To reduce cost, maintaining stability of lipases is very important. For the purpose of overcoming this problem, we tried to suppress the decreasing lipase stability by optimization of reaction system. Specifically, we adjusted reaction conditions and reaction mode (batch or continuous) thereby establishing a stable reaction system. From the above studies, we could maintain stability of the lipase activity and achieve the stable production system. This reaction system can be applied to interesterification not only between triacylglycerol (TAG) but also between TAG and fatty acids or ester. We introduce these examples of practical application in this presentation.