

## DAFTAR PUSTAKA

- Akoh, C.C., dan Min, D.B. 1988. *Food Lipids Third Edition*. New York: CRC Pres.
- Adachi, Shuji, and Takashi Kobayashi. 2005. Review: *Synthesis of Esters by Immobilized-Lipase-Catalyzed Condensation Reaction of Sugars and Fatty Acids in Water-Miscible Organic Solvent*. JOURNAL OF BIOSCIENCE AND BIOENGINEERING. Vol. 99, No. 2, 87–94.
- Berrios, M., J. Siles, M.A. Marti'n , A. Marti'n. 2007. *A kinetic study of the esterification of free fatty acids (FFA) in sunflower oil*. Fuel 86 (2007) 2383–2388
- Boruczkowska, H., Boruczkowski, T. Leszczynski, W., Tomazewska-Ciosk, E., Miedzianka, J., Drozd, W. 2012. *The obtaining of starch- and oleic acid-based ester and it properties*. Zywnosc Nauka Technology Jakosc, 83: 98-107.
- Collignon F, Loenders R, Marens JA, Jacobs PA, Poncelet G. 1999. *Liquid phase synthesis of MTBE from methanol and isobutene over acid zeolites and Amberlyst-15*. J Catal 1999;182:302–12.
- Damnjanovic, J.J., Zuza, M.G., Savanovic, J.K., Bezbradica, D. I., Mijin, D.Z., Bozkovic-Vragolovic, N., Knezevic-Jugovic, Z.D. 2012. *Covalently Immobilized Lipase Catalyzing High-Yielding Optimized Geranyl Butyrate Synthesis in a batch and Fluidized Bed Reactor*. Journal of Molecular Catalysis B: Enzymatic, 75: 50-59.
- Dandekar, P.P. and V.B. Patravale, 2009. *Enzymatic synthesis of fructose ester from mango kernel fat*. Indian Journal of Chemical Technology Vol. 16, 317-321.
- Deutschmann, Olaf, Helmut Kneozinger, Karl Kochloefl, Thomas Turek. 2009. *Heterogeneous Catalysis and Solid Catalysts*. Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim 10.1002/14356007.a05\_313.pub2
- Dubreucq, Eric, Amelie Ducret, and Robert Lortie, 2000. *Optimization of Lipase-Catalyzed Sorbitol Monoester Synthesis in Organic Medium*. Journal of Surfactants and Detergents, Vol. 3, No. 3
- Fessenden, R. and Joan Fessenden, 1990. *Organic Chemistry*. California:

Brooks/Cole.

Fennema, O.R.1996. *Food Chemistry*. Third Edition. New York: University of Wisconsin Madison.

Gumel, A.M., Annuar, M.S.M., Heidelberg, T., Chisti, Y. 2011. *Lipase mediated synthesis of sugar fatty acid esters*. *Process Biochemistry*, 46: 2079-2090.

Gunstone, F.D. 2004. *The Chemistry of Oils and Fats: Sources, Composition, Properties and Uses*. United Kingdom: Blackwell Publishing.

Hardiani, Amanda SN. 2001. *Kinetika reaksi sintesa xylitol polyester dari destilat asam lemak minyak sawit (DALMS)*. Skripsi.

Habulin, S. Sabeder, Z. Knez. 2008. *Enzymatic synthesis of sugar fatty acid esters in organic solvent and in supercritical carbon dioxide and their antimicrobial activity*. *The journal of supercritical fluids* 45 (3) 338-345.

Kempen, S. Boeriu, C.G., Schols, H. A., de Waard., Van der Linden, E., and Sagis, L. 2013. *Novel surface active Oligofructose fatty acid mono-esters by enzymatic esterification*. *Food Chem*, 138: 1884-1891.

Ketaren, S., 1986. *Pengantar Teknologi Minyak dan Lemak Pangan*. UI Press, Jakarta.

Kansedo, Jibrail and Keat Teong Lee. 2014. *Esterification of hydrolyzed sea mango (Cerbera odollam) oil using various cationic ion exchange resins*. *Energy science and Engineering* 2 (1); 31-38.

Labuza, T.P. and Riboh, D. 1982. *Theory and application of Arrhenius kinetics to the prediction of nutrient losses in foods*. *Food Technology*.36 (10):66-74.

Lopez DE, Goodwin JG, Bruce DA, Lotero E. 2005. *Transesterification of triacetin with methanol on solid acid and base catalysts*. *Appl Catal A Gen* 2005;295:97–105.

Marchetti JM, Miguel VU, Errazu AF. 2007. *Heterogeneous esterification of oil with high amount of free fatty acids*. *Fuel* 2007;86:906–10.

Neta, Nair Sampaio, Antonio Peres, Jose Teixeira, Ligia Rodrigues. 2011. *Maximization of fructose ester synthesis by response surface methodology*. *New Biotechnology* vol 28 no.4

Neta, Nair Sampaio, Jose Santos, Soraya Sancho, Sueli Rodrigues, Luciana Goncalves, Ligia. Rodrigues, Jose Teixaira. 2012. *Enzymatic synthesis of sugar ester and their potential as surface active stabilizers of coconut milk*

*emulsions*. Food Hydrocolloids 27 : 324-331.

Pauly , N. Gilles, L. Jean-Marc Engasser, N. Mohammed Ghoul. 2002. *Method for enzymatic synthesis of sucrose esters*. US Patent 6,355,455

Sabeder, S., Habulin, M., dan Knez, Z. 2006. *Lipase-Catalyzed Synthesis of Fatty Acid Fructose Esters*. Journal of Food Engineering, 77:880-886.

Sani, Y.M., Wan Mohd Asri Wan Daud, A.R. Abdul Aziz. 2014. *Activity of solid acid catalyst for biodiesel production: A critical Review*. Applied Catalyst A: General 470 pp140-161

Sharma, Yogesh C., dan Bhaskar Singh. 2011. *Advancements in solid acid catalysts for ecofriendly and economically viable synthesis of biodiesel*. Biofuels, Bioprod. Bioref. 5:69–92 (2011)

Szuts, Angela, Piroska Szabo. 2012. *Sucrose ester as natural surfactants in drug delivery systems-a mini-review*. International Journal of Pharmaceutics 433:1-9.

Tai, HP, and Brunner G.2009. *Sugar fatty acid ester synthesis in high-pressure acetone–CO<sub>2</sub> system*. J Supercrit Fluids 48:36–40

Tesser, R., D. Luca Casale, M. D. Verde, and E. S. Serio.2010. *Kinetics and modeling of fatty acids esterification on acid exchange resins*. Chem. Eng. J. 157:539–550.

Triyono, S.B, dan Tahir, I., 2000. *Kinetika Kimia. Buku Ajar. Jurusan Kimia. Fakultas Matematika and Ilmu Pengetahuan Alam*. Universitas Gadjah Mada. Yogyakarta.

Walsh, Marie K., Rebecca A. Bombyk, Ashwini Wagh, Amanda Bingham, Lisa M., Berreau. 2009. *Synthesis of lactose monolaurat as influenced by various lipases and solvents*. Journal of molecular catalysis B: Enzymatic 60: 171-177.

Winarno, F.G. 1998. *Kimia Pangan dan Gizi*. Jakarta: PT. Gramedia Pustaka Utama

Yan, Y., Bornscheuer, U.T., Stadler, G., Lutz-Wahl, S., Reuss, M., dan Schmid, R.D. 2011. *Production of sugar fatty acid ester by enzymatic esterification in a stirred-tank membrane reactor: Optimization of parameters by response surface methodology*. Journal of the American oil chemists society, 78 (2):

147-152.

- Yanke, Li, Zhang Shufen, Yang Jinzong, Wang Qinghui. 2004. *Relationship of solubility parameters to interfacial properties of sucrose esters*. Colloids and surfaces a: physicochem. Eng. Aspects 248: 127-133.
- Ye, R., Hayes, D.G. 2011. *Optimization of solvnt-free lipase-catalyzed synthesis of saccharide-fatty acid ester through control of water concentration*. Journal of the American Oil Chemists Society, 88 (9): 1351-1359.
- Yoo, Sang Joon Park, and Hyon Hee Yoon. 2007. *Enzymatic Synthesis of Sugar Fatty Acid Esters*. *J. Ind. Eng. Chem.*, **Vol. 13**, No. 1: 1-6.
- Zhang, Y., M.A. Dube, D.D. Mc Lean, M. Kates, 2003. *Biodiesel Production from Waste Cooking Oil: Process Design and Technological Assesment*. Bioresource Technology. 89: 1-16.