

## DAFTAR PUSTAKA

- Anonim, 2009, *Road Map Industri Pengolahan Kelapa*, Departemen Perindustrian, Jakarta.
- Arbain, N.H., and Salimon, J., 2011, The Effects of Various Acid Catalyst on The Esterification of *Jatropha Curcas* Oil Based Trimethylolpropane Ester as Biolubricant Base Stock, *E-J. of Chem.*, 8(S1), S33-S40.
- Batovska, D., Todoroca, I.T., Tsvetkova, I.T., and Najdenski, H., 2009, Antibacterial Study of the Medium Chain Fatty Acids and their 1-Monoglyceride: Individual Effects and Synergistic Relationships, *Polish J. of Microbiology*, 58(1), 43-47.
- Bergsson, G., Arnfinnsson, J., Steingrímsson, O., and Thormar, H., 2001, In Vitro Killing of *Candida albicans* by Fatty Acids and Monoglycerides, *Antimicrob. Agents Chemother.*, 11(45) 3209-3212.
- Bergsson, G., Steingrímsson, O., and Thormar, H., 2002, Bactericidal Effect of Fatty Acids and Monoglycerides on *Helicobacter pylori*, *Int. J. Antimicrob. Agents*, 20, 258-262.
- Boffito, D.C., Galli, F., Pirola, C., Bianchi, C.L., and Patience, G.S., 2014, Ultrasonic Free Acids Esterification in Tobacco and Canola Oil, *Ultrason. Sonochem.*, 6(21), 1969-1975.
- Bossaert, W.d., Vos, D.E.D., Rhijn, W.M.V., Bullen, J., Grobet, P.J., and Jacobs, P.A., 1999, Mesoporous Sulfonic Acids as Selective Heterogeneous Catalyst for The Synthesis of Monoglycerides, *J. Catal.*, 182, 156-164.
- Calle, C. de la, Fraile, J.M., and Pires, L.R.E., 2013, Heterogeneous Catalysis Applied to The Synthesis of Glycerol Derived Solvents, *10<sup>th</sup> Green Chemistry Conference*, Spain.
- Christie, W.W., 1993, Preparation of Ester Derivatives of Fatty Acids for Chromatographic Analysis, *Adv. Lipid Method.*, 2, 69-111.
- Clayden, J., Greeves, N., Warren, S., and Wothers, O., 2001, *Organic Chemistry*, Oxford University Press, Inc., New York.
- DebMandal, M., and Mandal, S., 2011, Coconut (*Cocos nucifera* L.: Arecaceae): In Health Promotion and Disease Prevention, *Asian Pac J Trop Dis.*, 241-247.
- Echeverri, D.A., Cardeño, F., and Rios, L.A., 2013, Glycerolysis of Crude Methyl Esters with Crude Glycerol from Biodiesel Production, *J. Am. Oil. Chem. Soc.*, (90), 1041-1047.

- Esteban, J., Ladero, M., and Ochoa, F.G., 2015, Kinetic Modelling of The Solventless Synthesis with A Sulphonic Ion Exchange Resin, *Chem. Eng. J.*, 269, 194-202.
- He, B., and Gerpen, J.H.V., 2012, Application of Ultrasonication in Transesterification Processes for Biodiesel Production, *Biofuels*, 3(4), 479-488.
- Hierholzer, J.C., and Kabara, J.J., 1982, In vitro effects of monolaurin compounds on enveloped RNA an DNAviruses. *J. Food Safety*, 4, 1-12.
- Ilgen, O., Yerlikaya, S., and Akyurek, F.O., 2016, Synthesis of Solketal from Glycerol and Acetone over Amberlyst-46 to Produce an Oxygenated Fuel Additive, *Periodica Polytech. Chem. Eng.*, 1-5.
- Kabara J.J., Swieczkowski D.M, Conley A.J., and Truant, J.P., 1972, Fatty Acids and Derivatives as Antimicrobial Agents, *Antimicrob. Agents Ch.*, 2(1), 23-38.
- Khurana, J.M., Sahoo, P.K., and Maikap, C., 1990, Sonochemical Esterification of Carboxylic Acids in Presence of Sulphuric Acid, *Synthetic Commun.*, 20(15), 2267-2271.
- Kimmel, T., Kinetic Investigation of The Base-Catalyzed Glycerolysis of Fatty Acid Methyl Esters, *Dissertation*, Fakultät II Mathematik und Naturwissenschaften der Technischen, Universität Berlin.
- Larkin, P.J., 2011, *IR and Raman Spectroscopy: Principles and Spectral Interpretation*, Elsevier, Inc., Waltham.
- Manjunathan, P., Maradur, S., Halgeri, A.B., and Shanbhag, G., 2015, Room Temperature Synthesis of Solketal from Acetalization of Glycerol with Acetone: Effect of Crystallite Size and The Role of Acidity of Beta Zeolite, *J. Mol. Catal. A-Chem*, 396, 47-54.
- Mattson, F. H., and Volpenhein, R. A., 1962, Synthesis and Properties of Glycerides, *J.Lipid Res.*, 3(3), 281-296.
- Menezes, F. D. L., Guimaraes, M. D. O., and Silva, M. J. da., 2013, Highly Selective SnCl<sub>2</sub>—Catalyzed Solketal Synthesis at Room Temperature, *Ind. Eng. Chem. Res.*, 52(47), 16709-16713.
- Moigradean, D., Poiana, M.A., Alda, L.M., and Gogoasa, I., 2013, Quantitative Identification of Fatty Acids from Walnut and Coconut Oils Using GC-MS Methods, *J. Agroaliment. Proc. Technol.*, 19(4), 456-463.

- Monteiro, J.B., Nascimento, M.G., and Ninow J.L., 2003, Lipase-catalyzed Synthesis of Monoacylglycerol in a Homogeneous System, *Biotechnol. Lett.*, 25(8), 641-644.
- Naik, M.K., Naik, S.N., and Mohanty, S., 2014, Enzymatic Glycerolysis for Conversion of Sunflower Oil to Food Based Emulsifiers, *Catal. Today*, 237, 145-149.
- Neji, S.B., Trabelsi, M., and Frikha, M.H., 2009, Esterification of Fatty Acids with Short-Chain Alcohols over Commercial Acid Clays in a Semi-Continuous Reactor, *Energies*, 2, 1107-1117.
- Nitbani, F.O., Jumina, Siswanta, D., dan Solikha, E.N., 2016, isolation and Antibacterial Activity Test of Lauric Acid from Crude Coconut Oil (*Cocos nucifera* L.), *Procedia Chem.*, 18, 132-140.
- Odds, F., Brown, A.J.P., and Gow, N.A.R., 2003, Antifungal Agents: Mechanism of Action, *Trends Microbiol.*, 6(11), 272-279
- Pal, R., Sarkar, T., and Khasnobis, S., 2012, Amberlyst-15 in Organic Synthesis, *Arkivoc*, (1), 570-609.
- Pavia, D.L., Lampman, G.M., and Kriz, G.S., 2001, *Introduction to Spectroscopy: A Guide for Students of Organic Chemistry*, 3<sup>rd</sup> Ed., Thomson Learning, Inc., Washington.
- Perosa, A., Moraschini, An., Selva, M., and Noe, M., 2016, Synthesis of The Fatty Esters of Solketal and Glycerol-Formal: Biobased Specialty Chemicals, *Molecules*, 21(170), 1-9.
- Pierpont, A.W., Batista, E.R., Martin, R.L., Chen, W., Kim, J.K., Hoyt, C.B., Gordon, J.C., Michalczyk, R., Silks, L.A.P., and Wu, R., 2015, Origins of The Regioselectivity in The Lutetium Triflate Catalyzed Ketalization of Acetone with Glycerol: A DFT Study, *Catal.*, 5, 1013-1019.
- Pizzey, R.L., Marquis, R.E., and Bradshaw, D.J., 2011, Antimicrobial Effects of o-cymen-5-ol and Zinc, Alone and in Combination in Simple Solutions and Toothpaste Formulations, *Int. Dent. J.*, 3, 33-40.
- Procopio, A., Gaspari, M., Nardi, M., Oliverio, M., Tagarelli, A., and Sindona, G., 2007, Simple and Efficient MW-Assisted Cleavage of Acetals and Ketals in Pure Water, *Tetrahedron Lett.*, 48, 8623-8627.
- Sakthivel, A., Nakamura, R., Komura, K., and Sugi, Y., 2007, Esterification of Glycerol by Lauric Acid Over Aluminium and Zirconium Containing Mesoporous Molecular Sieves in Supercritical Carbon Dioxide Medium, *J. Supercrit. Fluid*, 42, 219-225.

- Sánchez, J.M., Arnaldos, M.S., and Adlercreutz, P., 2015, Effective and Highly Selective Lipase-Mediated Synthesis of 2-monoolein and 1,2-diolein in Two-Phase System, *J. Mol. Catal. B.: Enzym*, 112, 9-14.
- Shirani, M., Ghaziaskar, H.S., and Xu, C.C., 2014, Optimization of Glycerol Ketalization to Produce Solketal as Biodiesel Additive in a Continuous Reactor with Subcritical Acetone Using Purolite® PD206 as Caralyst, *Fuel Process. Technol.*, 124, 206-211.
- Silberberg, M.S., 2009, *Chemistry: The Molecular Nature of Matter and Change*, 5<sup>th</sup> Ed., McGraw-Hill, New York.
- Silhavy, T.J., Kahne, D., and Walker, S., 2010, The Bacterial Cell Envelope, *Cold Spring Harb. Perspect Biol.*, 2(5), 1-16.
- Silverstein, R.M., Webster, F.X., and Kiemle, D.J., 2005, *Spectrometric Identification of Organic Compound*, 7<sup>th</sup> Ed., John Wiley & Sons, Inc., Hoboken.
- Suriyaprapadilok, N., and Kitiyanan, B., 2011, Synthesis of Solketal from Glycerol and Its Reaction with Benzyl Alcohol, *Energy Procedia*, 9, 63-69.
- Swamy, N. R., and Venkateswarlu Y., 2002, A mild and Efficient Method for Chemoselective Deprotection of Acetonides by Bismuth (III) Triklorida, *Tetrahedron Lett.*, 43, 7549-7552.
- Syah, A.N.A., 2005, *Virgin Coconut Oil: Minyak Penakluk Aneka Penyakit*, Agro Media Pustaka, Yogyakarta.
- Wahyudin, T., 2016, Sintesis Kandidat Senyawa Antibakteri Monopalmitin Melalui Transesterifikasi Etil Palmitat dengan Gliserol Terproteksi 1,3-dioxolan, *Tesis*, Departemen Kimia FMIPA, UGM.
- Wang, X., Jin, Q., Wang, T., Huang, J., and Wang, X., 2013, An Improved Method for The Synthesis of 1-monoolein, *J. Mol. Catal. B.: Enzym.*, 97, 130-136.
- Wen, B., Eli, W., Xue, Q., Dong, X., and Liu, W., 2007, Ultrasound Accelerated Esterification of Palmitic Acid with Vitamin C, *Ultrason. Sonochem.*, 14, 213-218.
- Xiong, J., Yan, S., Ding, N., Zhang, W., and Li, Y., 2013, Ultrasound-Assisted Selective Deprotection of Terminal Acetonides Catalyzed by Silica-Supported Boron Trifluoride, *J. Carbohydr. Chem.*, 32, 814-192.
- Yang, J., Li, N., Ma, W., Zhou, J., and Sun, H., 2014, Synthesis of Solketal with Catalyst Sulfonic Acid Resin, *Adv. Mater. Res.*, (830), 176-179.

- Yu, C.C., Lee, Y.S., Cheon, B.S., and Lee, S.H., 2003, Synthesis of Glycerol Monostearate eith High Purity, *Bull. Korean Chem. Soc.*, 8(24), 1229-1231.
- Yulian, A. I., dan Margawati, D.H., 2007, Uji Banding Efektivitas *Virgin Coconut Oil* dengan Ketokonazol 2% Secara In Vitro Terhadap Pertumbuhan *Candida albicans*, *Artikel Karya Tulis Ilmiah*, Farmakologi Fakultas Kedokteran, Universitas Diponegoro Semarang.