

## DAFTAR PUSTAKA

- Arbain, N.H. dan Salimon, J., 2011, The Effects of Various Acid Catalyst on the Esterification of *Jatropha Curcas* Oil based Trimethylolpropane Ester as Biolubricant Base Stock, *E-Journal Chem.*, 8, 33–41.
- Aulia, F., Marpongahtun, dan Gea, S., 2013, Studi Penyediaan Nanokristal Selulosa dari Tandan Kosong Sawit (TKS), *J. Saintia Kim.*, 1, 1–7.
- Balat, M. dan Balat, H., 2008, A Critical Review of Biodiesel as a Vehicular Fuel, *Energy Convers. Manag.*, 49, 2727–2741.
- Beula, C. dan Sai, P.S.T., 2013, Kinetics of Esterification of Palmitic acid with Ethanol- Optimization Using Statistical Design of Experiments, *Int. J. Chem. Eng. Appl.*, 4, 388–392.
- Bhatia, S. dan Yakoob, A.Q., 2004, Esterification of Palmitic Acid with Methanol in The Presence of Macroporous Ion Exchange Resin as Catalyst, *IIUM Eng. J.*, 5, 35–51.
- Carmo, A.C., Souza, L.K.C., Costa, C.E.F., Longo, E., Zamian, J.R., dan Filho, G.N.R., 2009, Production of Biodiesel by Esterification of Palmitic Acid Over Mesoporous Aluminosilicate Al-MCM-41, *Fuel*, 88, 461–468.
- Carta, G., Murru, E., Lisai, S., Sirigu, A., Piras, A. dan Collu, M., 2015, Dietary Triacylglycerols with Palmitic Acid in the sn-2 Position Modulate Levels of N-Acylethanolamides in Rat Tissues, *Public Libr. Sci.*, 3, 1–12.
- Chen, G. dan Fang, B., 2011, Preparation of Solid Acid Catalyst from Glucose–Starch Mixture for Biodiesel Production, *Bioresour. Technol.*, 102, 2635–2640.
- Chisti, Y., 2007, Biodiesel from microalgae, *Biotechnol. Adv.*, 25, 294–306.
- Clayden, J., Greeves, N., Warren, S., dan Wothers, P., 2001, *Organic Chemistry*, Oxford University Press, New York.
- Fadilla, F., 2018, Synthesis of Octyl Lignosulfonic Acid and Cellulose Sulfate as Surfactant from Sawdust for Enhanced Oil Recovery Application, *Skripsi*, Departemen Kimia FMIPA UGM, Yogyakarta.
- Gusrianto, P., Zulharmita, dan Rivai, H., 2011, Preparasi dan Karakterisasi Mikrokristalin Selulosa dari Limbah Serbuk Kayu Penggajian, *J. Sains dan Teknol. Farm.*, 16, 180–188.

- Habibah, R., Nasution, D.Y., dan Muis, Y., 2013, Penentuan Berat Molekul dan Derajat Polimerisasi  $\alpha$  – Selulosa yang Berasal dari Alang-Alang (*Imperata cylindrica*) dengan Metode Viskositas, *J. Sain. Kim.*, 1, 1–6.
- Helwani, Z., Othman, M.R., Aziz, N., Kim, J., dan Fernando, W.J.N., 2009, Solid Heterogeneous Catalysts for Transesterification of Triglycerides with Methanol : A Review, *Appl. Catal. A Gen.*, 363, 1–10.
- Herman, S. dan Khairat, 2004, Kinetika Reaksi Hidrolisis Minyak Sawit dengan Katalisator Asam Klorida, *Jurnal Natur Indonesia*, *J. Natur Indones.*, 2, 118–121.
- Hidayati, S.R.I., 2011, Pengaruh Konsentrasi  $H_2SO_4$  dan Lama Sulfonasi pada Pembuatan Metil Ester Sulfonat dari Minyak Kelapa, *Bul. Palma*, 12, 83–93.
- Ibrahim, T.M., Hidayat, C., dan Santoso, U., 2017, Oksidasi dan Sulfonasi Tandan Kosong Kelapa Sawit sebagai Katalis Asam Heterogen, *J. Rekayasa Kim. dan Lingkung.*, 12, 77–86.
- Innis, S.M., 2016, Palmitic acid Early Human Development, *Crit. Rev. Food Sci. Nutr.*, 56, 1952–1950.
- Irfan, G., Asdim, dan Maryanti, E., 2016, *Sitesis dan Karakterisasi Membran Sel Bahan Bakar Bebasiskan Polimer*, Badan Penerbitan Fakultas Pertanian UNIB, Bengkulu.
- Jedvert, K. dan Heinze, T., 2017, Cellulose modification and shaping – a review, *J Polym Eng*, 37, 845–860.
- Kaijanen, L., Paakkunainen, M., Pietarinen, S., Jernström, E., dan Reinikainen, S., 2015, Ultraviolet Detection of Monosaccharides : Multiple Wavelength Strategy to Evaluate Results after Capillary Zone Electrophoretic Separation, *Int. J. Electrochem. Sci.*, 10, 2950–2961.
- Kansedo, J., Lee, K.T., dan Bhatia, S., 2009, Biodiesel Production from Palm Oil via Heterogeneous Transesterification, *Biomass and Bioenergy*, 33, 271–276.
- Ketaren, S., 2008, Pengantar Teknologi Minyak dan Lemak Pangan, Universitas Indonesia, Jakarta.
- Kulkarni, M.G., Dalai, A.K., dan Bakhshi, N.N., 2007, Transesterification of Canola Oil in Mixed Methanol/Ethanol System and Use of Esters as Lubricity Additive, *Bioresour*, 98, 2027–2033.
- Lam, M.K., Lee, K.T., dan Mohamed, A.R., 2010, Homogeneous/Heterogeneous and Enzymatic Catalysis for Transesterification of High Free Fatty Acid Oil (Waste Cooking Oil) to Biodiesel: A review, *Biotechnol. Adv.*, 28, 500–518.

- Lee, H. V, Hamid, S.B.A., dan Zain, S.K., 2014, Conversion of Lignocellulosic Biomass to Nanocellulose : Structure and Chemical Process, *Sci. World J.*, 2014, 1–20.
- Maceiras, R., Rodriguez, M., Cancela, A., Urrejola, S., dan Sanchez, A., 2011, Macroalgae: Raw Material for Biodiesel Production, *Appl. Energy*, 88, 3318–3323.
- Masitah, N., 2014, Pembuatan Pulp dari Sabut Gambas Tua Kering dengan Proses Alkali dengan Alkohol, *J. Tek. Kim.*, 9, 27–32.
- Nisak, K., Daniel, dan Saleh, C., 2017, Sintesis Askorbil Palmitat dari Metil Palmitat dan Asetil Askorbat melalui Reaksi Interesterifikasi dengan Katalis Lipase, *J. At.*, 2, 204–208.
- Oluwadare, A.O., Noah, A.S., Sotannde, O.A., dan Alao, O., 2014, Effects of Beating on Strength Properties of Hand Sheets of Unbleached Kraft Pine Pulp at Two Levels of Delignification, *Int. J. Appl. Res. Technol.*, 3, 87–92.
- Pan, S. dan Ragauskas, A.J., 2014, Enhancement of Nanofibrillation of Softwood Cellulosic Fiber by Oxidation and Sulfonation, *Carbohydr. Polym.*, 111, 514–523.
- Pappalardo, V.M., Boerju, C.G., Zaccheria, F., dan Ravasio, N., 2017, Synthesis and Characterization of Arabinose-Palmitic Acid Esters by Enzymatic Esterification, *Mol. Catal.*, 433, 383–390.
- Prayanto, D.S., Salahudin, M., Qadariyah, L., dan Mahmud, 2016, Pembuatan Biodiesel Dari Minyak Kelapa Dengan Katalis NaOH Menggunakan Gelombang Mikro (Microwave) Secara Kontinyu, *J. Tek. ITS*, 5, 1–6.
- Prinsen, P., Luque, R., dan Arellano, C.G., 2018, Zeolite Catalyzed Palmitic Acid Esterification, *Microporous Mesoporous Mater.*, 262, 133–139.
- Putra, R.A., Ismayanti, R., dan Kalista, A.G., 2018, Sulfonasi Metil Ester Minyak Kedelai Untuk Aplikasi Chemical Flooding, *J. Sains Mater. Indones.*, 19, 77–82.
- Rajendran, A., 2016, Silica Sulphuric Acid Catalyzed Fischer Esterification Reaction under Solventless Condition: A Novel Green Chemical Reaction, *Der Chem. Sin.*, 27–36.
- Ramadhani, D.G., Fatimah, N.F., Sarjono, A.W., Setyoko, H., dan Nuhayati, D., 2017, Synthesis of Natural Ni / Zeolite Activated by Acid as Catalyst for Synthesis Biodiesel from Ketapang Seeds Oil, *J. Kim. dan Pendidik. Kim.*, 2, 72–79.

- Rivai, M., Irawadi, T.T., Suryani, A., Setyaningsih, D., dan Hambali, E., 2011, Penentuan Lama Sulfonasi Pada Proses Produksi Surfaktan MES untuk Aplikasi EOR, *J. Ilmu Pertan. Indones.*, 16, 28–34.
- Saravanan, K., Tyagi, B., Shukla, R.S., dan Bajaj, H.C., 2015, Applied Catalysis B : Environmental Esterification of palmitic acid with methanol over template-assisted mesoporous sulfated zirconia solid acid catalyst, *Applied Catal. B, Environ.*, 172–173, 108–115.
- Shajaratunnur, Z.A., Taufiq-Yap, Y.H., Rabiah, N.M.F., Teo, S.H., Syazwani, O.N., dan Islam, A., 2014, Production of Biodiesel from Palm Oil Using Modified Malaysian Natural Dolomites, *Energy Convers. Manag.*, 78, 738–744.
- Soetaredjo, F.E., Ayucitra, A., Ismadji, S., dan Maukar, A.L., 2011, Applied Clay Science KOH / Bentonite Catalysts for Transesterification of Palm Oil to Biodiesel, *Appl. Clay Sci.*, 53, 341–346.
- Somerville, C., 2006, Cellulose Synthesis in Higher Plants, *Annu. Rev. Cell Dev. Biol.*, 22, 53–78.
- Sumada, K., Tamara, P.E., dan Alqani, F., 2011, Kajian Proses Isolasi  $\alpha$  - Selulosa dari Limbah Batang Tanaman Manihot Esculenta Crantz yang Efisien, *J. Tek. Kim.*, 5, 434–438.
- Surest, A.H. dan Satriawan, D., 2010, Proses Soda (Konsentrasi NaOH, Temperatur Pemasakan dan Lama Pemasakan), *J. Tek. Kim.*, 17, 1–7.
- Usman, T., Ariany, L., Rahmalia, W., dan Advant, R., 2009, Esterification of Fatty Acid from Palm Oil Waste (Sludge Oil) by Using Alum Catalyst, *Indo. J. Chem.*, 9, 474–478.
- Zhang, J., Jiang, D., Dang, Z., Elder, T.J., dan Ragauskas, A.J., 2008, Oxidation and Sulfonation of Cellulosic, *Cellulose*, 15, 89–99.
- Zhang, M., Qin, Y., Ma, J., Yang, L., Wu, Z., dan Wang, T., 2016, Ultrasonics Sonochemistry Depolymerization of Microcrystalline Cellulose by The Combination of Ultrasound and Fenton Reagent, *Ultrason. Sonochemistry J.*, 31, 404–408.
- Zulkifli, M. dan Estiasih, T., 2014, Sabun dari Distilat Asam Lemak Minyak Sawit : Kajian Pustaka (Soap From Palm Fatty Acid Distilate : A Review), *urnal Pangan dan Argoindustri*, 2, 170–177.