

## DAFTAR PUSTAKA

- Andami P., Zinatizadeh A.A., Feyzi M, Zangeneh H., Azizi S., Norouzi L., and Maaza M. 2022. "Optimization of Biodiesel Production from Sunflower Oil Transesterification using Ca-K/ $Al_2O_3$  Nanocatalysts." *Int. J. Eng.* Vol. 35, No. 02, (February 2022) 351-359.
- Badan Standarisasi Nasional. 2015. "SNI 7182:2015."
- Bejarano-Alva, I.J., Hirata, G.A.M., Sampaio, K.A., Batista, E.A.C., and Meirelles, A.J.A. 2020. "High conversion of palm olein to ethyl esters using a strong anion exchange resin : study of operational parameters." *J. Braz. Chem. Soc.* Vol 31, No. 7, 14.
- Bhatia, S.K., Gurav, R., Choi, T.-R., Kim, H.J., Yang, S.-Y., Song, H.-S., Park, J.Y., Park, Y.-L., Han, Y.-H., Choi, Y.-K., Kim, S.-H., Yoon, J.-J., Yang, Y.-H. 2020. "Conversion of waste cooking oil into biodiesel using heterogenous catalyst derived from cork biochar." *Bioresour. Technol.* 302, 122872.
- Budiawan, R., Zulfansyah, Fatra, W., and Helwani, Z. 2013. "Off-grade palm oil as a renewable raw material for biodiesel production by two-step processes." *Chemical Engineering on Science and Application* 309-319.
- Budiman, A., Kusumaningtyas RD., Pradana, YS., dan Lestari, NA. 2017. *Biodiesel : Bahan Baku, Proses, dan Teknologi*. Yogyakarta: Gadjah Mada University Press.
- Erchamo, Y.S., Mamo, T.T., Adam, G., and Mekonnen, Y.S. 2021. "Improved biodiesel production from waste cooking oil with mixed methanol-ethanol using enhanced eggshell-derived CaO nano-catalyst." *Sci. Rep.* (2021) 11:6708.
- Fangfang, F., Alagumalai, A., and Mahian, O. 2021. "Sustainable biodiesel production from waste cooking oil : ANN modeling and enviromental factor assesment." *Sustain. Energy Technol. and Assess.* 46 (2021) 101265.
- Foo, W.H., Chia, W.Y., Tang, D.Y.Y., Koay, S.S.N., Lim, S.S., Chew, K.W. 2021. "The conundrum of waste cooking oil: transforming hazard into energy." *J. Hazard. Mater.* 417, 126129.
- Galadima, A. and Muraza, O. 2020. "Waste materials for production of biodiesel catalysts: Technological status and prospects." *J. Clean. Prod.* 263 (2020) 121358.
- Gonzaga, V.E., Romero, R., Gomez-Espinosa, R.M., Romero, A., Matinez, S.L., and Natividad, R. 2021. "Biodiesel production from waste cooking oil catalyzed by a bifunctional catalyst." *ACS Omega* 6, 24092-24105.
- Guo, M., Jiang, W., Chen, C., Qu, S., Lu, J. and Ding, J. 2021. "Process optimization of biodiesel production from waste cooing oil by esterification of fatty acids using  $La_3+/ZnO-TiO_2$  photocatalyst." *Energy Convers. Manag.* 229 (2021) 113745.

- Gutiérrez-Zapata, C.A., Martínez, D. B., Collazos, C. A., Acuña, H.E.C., Cuervo, J. A. and Fernandez, C.P. 2017. "Productions of sunflower oil biodiesel and used cooking oil through heterogeneous catalysts compared to conventional homogeneous catalysts." *J. Phys. Conf.* 786 (1), 012025.
- Hadiguna, R.A. dan Putra, D. 2015. *Dinamika Jaringan Rantai Pasok Biodiesel dari Minyak Goreng Bekas (Analisis, Pemodelan dan Kebijakan)*. Padang: Andalas University Press.
- Hamed, H.H., Mohammed, A.E., Habeeb, O.A., Ali, O.M, Aljaf, O.S, and Abdulqader, M.A. 2021. "Biodiesel production from waste cooking oil using homogeneous catalyst." *Egypt. J. Chem.* 64 (6) 2827-2832.
- Hanif. 2009. "Analisis Sifat Fisik dan Kimia Biodiesel dari Minyak Jelantah sebagai Bahan Bakar Alternatif Motor Diesel." *Jurnal Teknik Mesin* Vol. 6 No.2.
- Helmi, M. and Hemmati, A. 2021. "Synthesis of magnetically solid base catalyst of NaOH/Chitosan-Fe<sub>3</sub>O<sub>4</sub> for biodiesel production from waste cooking oil: Optimization, kinetics and thermodynamic studies." *Energy Conversion and Management* 248 (2021) 114807.
- Indarti, R., Manfaati, R., Marlina, A., dan Keryanti. 2021. "Distilasi azeotrop campuran etanol-air untuk meningkatkan kadar etanol menggunakan entrainer etil asetat." *Jurnal Fluida* 14: 24 – 28.
- Jamil, F., Kumar, P, Al-Haj, L., and Mint, M. 2021. "Heterogeneous carbon-based catalyst modified by alkaline earth metal oxides for biodiesel production an kinetic study." *Energy Conversion and Management* 10 (2021) 100047.
- Juniora, E.G.S., Perez, V.B., Reyerob, I., Serrano-Lotinac, A., and Justod, O.R. 2019. "Biodiesel production from heterogeneous catalysts based K<sub>2</sub>CO<sub>3</sub> supported on extruded  $\gamma-Al_2O_3$ ." *Fuel* 241 (2019) 311–318.
- Kabir, I., Yacob, M., Radam, A. 2014. "Households' awareness, attitudes and practices regarding waste cooking oil recycling in Petaling, Malaysia." *IOSR-JESTFT* 8 45–51.
- Kawentar, W.A. and Budiman, A. 2013. "Synthesis of biodiesel from second-used cooking oil." *Energy Procedia* 32, 190-199.
- Komintarchat, C. and Chuepeng, S. 2020. "Catalytic enhancement of calcium oxide from green mussel shell by potassium chloride impregnation for waste cooking oil-based biodiesel production." *Bioresour. Technol. Rep.* 12 (2020) 100589.
- Kosim, M. dan Munasir. 2014. "Studi Pengaruh Penambahan SiO<sub>2</sub> Terhadap Porositas  $\gamma-Al_2O_3$ ." *Jurnal Fisika* Vol. 03 No. 03 Hal. 37-40.
- Likoza, B. and Levec, J. 2014. "Effect of process conditions on equilibrium, reaction kinetics and mass transfer for triglyceride transesterification to biodiesel: Experimental and modeling based on fatty acid composition." *Fuel Processing Technology* 122 (2014) 30–41.

- Loizides, M.I., Loizidou, X.I., Orthodoxou, D.L., Petsa, D. 2019. "Circular bioeconomy in action: Collection and recycling of domestic used cooking oil through a social." *reverse logistics system. Recycl.* 4 (2), 16.
- Naeem, A., Khan, I.W., Farooq, M., Mahmood, T., Din, I.U., Ghazi, Z.A., and Saeed, T. 2021. "Kinetic and optimization study of sustainable biodiesel production from waste cooking oil using novel heterogeneous solid base catalyst." *Bioresour. Technol.* 328 (2021) 124831.
- Ogbu, I.M., Ajiwe, V.I.E, and Okoli, C.P. 2018. "Performance Evaluation of Carbon-based Heterogeneous Acid Catalyst Derived From Hura crepitans Seed Pod for Esterification of High FFA Vegetable Oil." *Bioenergy Res.* 11:772–783.
- Pasupulety, N., Gunda, K., Liu, Y., Rempel, G. L., and Ng, F. T. T. 2013. " Production of biodiesel from soybean oil on  $CaO/Al_2O_3$  solid base catalysts." *Appl. Catal. A: Gen.* 452: 189–202.
- Rashid, U., Anwar, F., Moser, BR., and Ashraf, S. 2008. "Production of sunflower oil methyl esters by optimized alkali-catalyzed methanolysis." *Biomass Bioenergy* 32:1202–5.
- Rasyid, R., Sabara, Z., Pratiwi, A., Juradin, R., Malik, R. 2018. "The Production of biodiesel from a traditional coconut oil using  $NaOH/\gamma-Al_2O_3$  heterogeneous catalyst", *IOP Conf. Ser.*, ." *IOP Conf. Ser. Earth Environ. Sci.* 175 (2018) 012025.
- Santosa, A., Wijaya, A.R., Rahmadani, A., Sukarianingsih, D., Putri, D.E.K., and Sumari. 2021. "Effect of  $CaO\_K_2O$  heterogeneous catalyst concentration and reaction temperature on trans-esterification of waste cooking oil with ultrasonic wave." *AIP Conf. Proc.* 2330, 070009.
- Sawitri, D.R., Sutijan, and Budiman, A. 2016. "Kinetics study of free fatty acids esterification for biodiesel production from palm fatty acid distillate catalysed by sulfated zirconia." *ARPN J. Eng. Appl. Sci.* Volume 11, Issue 16, Pages 9951 – 9957.
- Silva, N., Batistella, C., Filho, R., and Maciel, M. 2009. "Biodiesel Production from Castor Oil: Optimization of Alkaline Ethanolysis." *Energy Fuels* 23, 5636–5642.
- Silveira Junior, E.G., Perez, V.H., Reyeno, I., Serrano-Lotina, A., and Justo, O.R. 2019. "Biodiesel production from heterogeneous catalysts based  $K_2CO_3$  supported on extruded  $\gamma-Al_2O_3$ ." *Fuel* 242 (2019) 311-318.
- Yaakob, Z., Mohammad, M., Alherbawi, M., Alam, Z., Sopian, K. 2013. "Overview of the production of biodiesel from waste cooking oil." *Renew. Sustain. Energy Rev.* 18, 184–193.