

DAFTAR PUSTAKA

- Agustin, N., 2015, Sintesis Biodiesel dari Minyak Goreng Bekas Teradiasi Microwave dan Terkatalisis SO₄/ZrO₂ dan Na₂O/ZrO₂, *Tesis*, Departemen Kimia FMIPA UGM, Yogyakarta.
- Amador, P., Martinez, E., Sanchez-Daza, O., & Flores, H., 2012, Energies of combustion and standard molar enthalpies of formation of ricinoleic acid and methyl ricinoleate, *J. Chem. Thermodynamic.*, 15-18.
- Berchmans, H., & Hirata, S., 2008, Biodiesel production from crude *Jatropha curcas* l. seed oil with a high content of free fatty acids, *Bioresource Technol.*, 1716-1721.
- Budiman, B.T., 2004, Penggunaan Biodiesel Sebagai Bahan Bakar Alternatif, di dalam: Prospek Biodiesel di Indonesia, *Prosiding Seminar Kementrian Riset dan Teknologi RI Masyarakat Perkelapasawitan Indonesia*, 12 Agustus 2004, Bogor.
- El Sherbiny, S., Refaat, A., & El Sheltawy, S., 2010, Production of biodiesel using the microwave technique, *J. Adv. Res.*, 309-314.
- Freedman, B., Butterfield, R., & Pryde E.H., 1984, Variables affecting the yields of fatty esters from transesterified vegetable oil, *J. Am. Oil Chem. Soc.*, 1638-1643.
- Guo, F., & Fang, Z., 2011, *Biodiesel Production with Solid Catalysts*, China: InTech.
- Hambali, E., Mujdalipah, S., Tambunan, A. H., Pattiwiri, A. W., & Hendroko, R., 2007, *Teknologi Bioenergi*, PT Agro Media Pustaka, Tangerang.
- Junaedi, P., 1985, Alkoholisasi Minyak Jarak Pagar dengan Katalisator Natrium Hidroksida pada Tekanan di atas Satu Atmosfir, Laporan Penelitian Laboratorium Proses Kimia, Fakultas Teknik UGM, Yogyakarta.
- Kaur, N., & Ali, A., 2013, Kinetics and reusability of Zr/CaO as heterogeneous catalyst for the ethanolysis and methanolysis of *Jatropha curcas* oil, *FPT.*, 173-184.
- Kawashima A, Matsubara, K., & Honda, K., 2009, Acceleration of catalytic activity of calcium oxide for biodiesel production, *Bioresour Technol.*, 696-700.
- Knothe, G., 2000, Monitoring a progressing transesterification reaction by fiber-optic near infrared spectroscopy with correlation to h nuclear magnetic resonance spectroscopy, *Jpn. AM. Oil. Chem. Soc.*, 489-493.
- Kurniawati, D., 2017, Rekayasa Minyak Jarak Pagar Sebagai Biodiesel dengan Katalis Basa Golongan Alkali Tanah, *Seminar Nasional Teknologi dan Rekayasa (SENTRA)*, 2017, Malang.

- Lersathapornsuk, V., Pairintra, R., & Aryusuk, K., 2008, Microwave assisted in continuous biodiesel production from waste frying palm oil and its performance in a 100 kw diesel generator, *Fuel Process.*, 1330-1336.
- Ma, F., & Hanna, M., 1999, Biodiesel production: A review, *Bioresource Technol.*, 77-82.
- Mahreni, & Sulistyawati, E., 2011, Pemanfaatan Kulit Telur Sebagai Katalis Biodiesel dari Minyak Sawit dan Metanol, *Seminar Rekayasa Kimia Dan Proses Jurusan Teknik Kimia, Fakultas Teknik Universitas Diponegoro*, 26 Juli 2011, Semarang.
- Marchetti, J., & Errazu, A., 2008, Comparison of different heterogeneous catalyst and different alcohol for the etherification reaction of oleic acid, *Fuel.*, 3477-3480.
- Mittelbach, M., & Remschmidt, C., 2004, *Biodiesel: The Comprehensive Handbook*, Boersedruck Ges.m.b.H, Vienna.
- Nurcholis, M., 2007, *Jarak Pagar*, Kanisius, Yogyakarta.
- Prakoso, T., 2003, *Potensi Biodiesel Indonesia*, Laboratorium Termofluida, Departemen Teknik Kimia ITB, Bandung.
- Qiu, F., Li, Y., Yang, D., Li, X., & Sun, P., 2011, Biodiesel production from mixed soybean oil and rapeseed oil, *Appl. Energy.*, 2050-2055.
- Reddy, C., Reddy, V., Oshel, R., & Verkade, J., 2006, Room temperature conversion of soybean oil and poultry fat to biodiesel catalyzed by nanocrystalline calcium oxides, *Energy and Fuels.*, 1310-1314.
- Rustamaji, H., 2010, Kinetika Reaksi Transesterifikasi Minyak Jarak Pagar dengan Katalisator Zirkonia Tersulfatasi, *Tesis*, Fakultas Teknik UGM, Yogyakarta.
- Santoso, A., 2008, *Pemanfaatan Gelombang Mikro untuk Meningkatkan Efisiensi Sintesis Biodiesel sebagai Energi Terbarukan*, Universitas Muhammadiyah Malang, Malang.
- Saputra, D. A., 2013, Sintesis dan Karakterisasi Katalis MgO/ γ -Alumina dan CaO/ γ -Alumina untuk Transesterifikasi Minyak Jarak (*Ricinus communis*) Menjadi Biodiesel, *Tesis*, Departemen Kimia FMIPA UGM, Yogyakarta.
- Sawitri, D., 2012, Kinetika Reaksi Esterifikasi pada Produksi Biodiesel dari Palm Fatty Acid Distillate (PFAD) dengan Katalisator Zirkonia Tersulfatasi, *Tesis*, Fakultas Teknik UGM, Yogyakarta.
- Setiawan, P., 2014, Preparasi NaOH/Bentonit dan Aplikasinya pada Sintesis Biodiesel dari Minyak Jarak (*Ricinus communis*), *Skripsi*, Departemen Kimia FMIPA UGM, Yogyakarta.

- Shakinaz, A., Ahmed, A., & Shakinaz, T., 2010, Production of biodiesel using the microwave technique, *J. Adv. Res.*, 309-314.
- Swanirma, K., Hess, M., 2014, Synthesis, Characterization and Catalyst Application of Barium Modified Zirconia Nanoparticle for the Synthesis of β -Nitro Alcohols, *Disertasi*, Departement of Chemistry National Institute of Technology, Orissa.
- Syah, A., 2006, *Biodiesel Jarak Pagar: Bahan Bakar Alternatif yang Ramah Lingkungan*, Agro Media Pustaka, Jakarta.
- Tiwari, A., A, K., & H, R., 2007, Biodiesel production from jatropha oil (*Jatropha curcas*) with high free fatty acids: an optimized process, *Biomass. Bionergi.*, 569-575.
- Wati, D. S., (2012). Microwave Assisted in Continuous Biodiesel Production from Waste Frying Palm Oil and Its Performance in a 100 kW Diesel Generator, *Skripsi*, FMIPA Universitas Sebelas Maret, Surakarta.
- Wibisono, A., 2007, *Produksi Biodiesel dari Lemak Babi*, Jakarta .
- Widayanti, W. D., 2016, Aplikasi Gelombang Mikro Pada Transesterifikasi Minyak Jarak (*Ricinus communis*) Terkatalisis ZrO₂/K₂O, *Skripsi*, Departemen Kimia FMIPA UGM, Yogyakarta.
- Xia, S., Guo, X., Mao, D., Shi, Z., Wu, G., & Lu, G., 2014, Biodiesel synthesis over the CaO–ZrO₂ solid base catalyst prepared by a urea–nitrate combustion method, *RSC Advance.*, 51688–51695.
- Zhang, Y., Dube, D., McLean, & Kates, M., 2003, Biodiesel production from waste cooking oil:1. process design and technological assessment, *Bioresource. Technol.*, 1-16.