

DAFTAR PUSTAKA

- A.E. Atabani, 2023. Valorization of spent coffee grounds into biofuels and value-added products: Pathway towards integrated bio-refinery - ScienceDirect [WWW Document]. URL <https://www.sciencedirect.com/science/article/abs/pii/S0016236119309925> (accessed 2.11.26).
- Agarwal, A.K., Atul Dhar, Dhar, A., 2013. Experimental investigations of performance, emission and combustion characteristics of Karanja oil blends fuelled DIC engine. *Renewable Energy* 52, 283–291. <https://doi.org/10.1016/j.renene.2012.10.015>
- Agustina, T., Heraldy, E., Hadiah, F., Hasanudin, H., Arita, S., Prakoso, T., Sari, T., Suprpto, B., Putra, M.F., Ramadhani, D., 2022. Biodiesel Production of Palm Oil Mill Effluent by Using Hydrotalcite Catalyst. *J. Ecol. Eng.* 23, 172–181. <https://doi.org/10.12911/22998993/148153>
- Ahmad, A., Shah, S.M.U., Mohd Fariduddin Othman, Othman, M.F., Maha Abdullah, Abdullah, M.A., 2014. Enhanced palm oil mill effluent treatment and biomethane production by co-digestion of oil palm empty fruit bunches with *Chlorella Sp.* *Canadian Journal of Chemical Engineering* 92, 1636–1642. <https://doi.org/10.1002/cjce.22029>
- An, H., Yang, W., Maghbouli, A., J. Li, Li, J., S.K. Chou, Chou, S.K., Chua, K.J., 2013. Performance, combustion and emission characteristics of biodiesel derived from waste cooking oils. *Applied Energy* 112, 493–499. <https://doi.org/10.1016/j.apenergy.2012.12.044>
- Caroko, N., Sampurna, H.B., 2023. Pengaruh Densitas dan Viskositas terhadap Sudut Injeksi Biodiesel *Jatropha-Jagung* (1:4 dan 4:1).
- Chauhan, B.S., Kumar, N., Du Jun, Y., Kum Bae Lee, Lee, K.B., 2010. Performance and emission study of preheated *Jatropha* oil on medium capacity diesel engine. *Energy* 35, 2484–2492. <https://doi.org/10.1016/j.energy.2010.02.043>
- Devan, P.K., Mahalakshmi, N.V., 2009. Study of the performance, emission and combustion characteristics of a diesel engine using poon oil-based fuels. *Fuel Processing Technology*.
- Encinar, J.M., Nogales-Delgado, S., Sánchez, N., 2021. Pre-esterification of high acidity animal fats to produce biodiesel: A kinetic study. *Arabian Journal of Chemistry* 14, 103048. <https://doi.org/10.1016/j.arabjc.2021.103048>
- Erdenedavaa, P., Akisawa, A., Adiyabat, A., Otgonjanchiv, E., 2019. Observation and modeling of dust deposition on glass tube of evacuated solar thermal collectors in Mongolia. *Renewable Energy* 130, 613–621. <https://doi.org/10.1016/j.renene.2018.06.077>
- Fuhaid, N., 2010. PENGARUH FILTER UDARA PADA KARBURATOR TERHADAP UNJUK KERJA MESIN SEPEDA MOTOR 2.
- Gumus, M., Sayin, C., Canakci, M., 2012. The impact of fuel injection pressure on the exhaust emissions of a direct injection diesel engine fueled with biodiesel–diesel fuel blends. *Fuel* 95, 486–494. <https://doi.org/10.1016/j.fuel.2011.11.020>
- Hakim, R, Surya, F, 2022. Impact of Biodiesel Fuel on Engine Performance and Carbon Deposit Formation. *Journal of Sustainable Energy Systems*.
- Hoang, A.T., Le, A.T., 2019. A review on deposit formation in the injector of diesel engines running on biodiesel. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* 41, 584–599. <https://doi.org/10.1080/15567036.2018.1520342>

- Hoang, P., King, J.A., Moore, S., Moore, K., Reich, K., Sidhu, H., Tan, C.V., Whaley, C., McMillan, J., 2022. Interventions Associated With Reduced Loneliness and Social Isolation in Older Adults: A Systematic Review and Meta-analysis. *JAMA Netw Open* 5, e2236676. <https://doi.org/10.1001/jamanetworkopen.2022.36676>
- Hoekman, S.K., Broch, A., Robbins, C., Cenicerros, E., Natarajan, M., 2012. Review of biodiesel composition, properties, and specifications. *Renewable and Sustainable Energy Reviews* 16, 143–169. <https://doi.org/10.1016/j.rser.2011.07.143>
- Hotti, S.R., Hebbal, O.D., 2011. Performance and Combustion Characteristics of Single Cylinder Diesel Engine Running on Karanja Oil/Diesel Fuel Blends. *Engineering* 3, 371–375. <https://doi.org/10.4236/eng.2011.34042>
- Kalghatgi, G., 2014. Fuel/Engine Interactions, *Nat Gas*. <https://doi.org/10.4271/R-409>
- Kazi Al-Amin, 2024. Fourier transform infrared spectroscopic technique for analysis of inorganic materials: a review - *Nanoscale Advances* (RSC Publishing) [WWW Document]. URL https://pubs.rsc.org/en/content/articlelanding/2025/na/d5na00522a?utm_source=chatgpt.com (accessed 2.11.26).
- Koczoń, P., Hołaj-Krzak, J.T., Palani, B.K., Bolewski, T., Dąbrowski, J., Bartyzel, B.J., Gruczyńska-Sękowska, E., 2023. The Analytical Possibilities of FT-IR Spectroscopy Powered by Vibrating Molecules. *International Journal of Molecular Sciences* 24. <https://doi.org/10.3390/ijms24021013>
- Li, Wang, J., Zhi Wang, Wang, Z., Xiao, J., 2015. Combustion and emission characteristics of diesel engine fueled with diesel/biodiesel/pentanol fuel blends. *Fuel* 156, 211–218. <https://doi.org/10.1016/j.fuel.2015.04.048>
- Lilian Lefol Nani Guarieiro, Guarieiro, L.L.N., Pedro Afonso de Paula Pereira, de Paula Pereira, P.A., Torres, E.A., Gisele O. da Rocha, da Rocha, G.O., de Andrade, J.B., 2008. Carbonyl compounds emitted by a diesel engine fuelled with diesel and biodiesel–diesel blends: Sampling optimization and emissions profile. *Atmospheric Environment* 42, 8211–8218. <https://doi.org/10.1016/j.atmosenv.2008.07.053>
- Mansur, I.H., Muhammad Ma'ruf, Hari Setiapraja, Rizqon Fajar, Dieni, 2023. Characterization of Palm Biodiesel Deposit on The Locomotive Engine Fuel Filters: Composition, Physical, Chemical Properties [WWW Document]. *IJTech - International Journal of Technology*. URL <https://ijtech.eng.ui.ac.id/article/view/5781> (accessed 2.11.26).
- Matiolo, C.H., Coelho Vargas, J.V., Mariano, A.B., Martins, L., Oliveira, A., Jacob Furlan, B., Woitchy Barbosa, J.P., Cordeiro Kollross, E., 2020. EVALUATION OF PERFORMANCE AND EMISSIONS OF GENSET WITH DIESEL / BIODIESEL, in: *Proceedings of the 18th Brazilian Congress of Thermal Sciences and Engineering*. Presented at the 18th Brazilian Congress of Thermal Sciences and Engineering, ABCM. <https://doi.org/10.26678/ABCM.ENCIT2020.CIT20-0790>
- Mohammed, A.A., Yaseen, A.A., Atiyah, I.K., 2021. EXPERIMENTAL STUDY FOR THE EFFECT OF DAMAGED VEGETABLE OIL BIOFUELS ON DIESEL ENGINE PERFORMANCE AND EXHAUST EMISSION 16.
- Mohod, A.G., Sudhir Jain, Sudhir Jain, Sudhir Jain, Jain, S.K., Ashok Powar, Powar, A., Rathore, N., Kurchania, A., 2010. Elucidation of unit operations and energy consumption pattern in small scale cashew nut processing mills. *Journal of Food Engineering* 99, 184–189. <https://doi.org/10.1016/j.jfoodeng.2010.02.017>
- Moto Kinoshita, Kinoshita, M., Saito, A., Matsushita, S., Shibata, H., Niwa, Y., 1998. Study of deposit formation mechanism on gasoline injection nozzle. *Jsae Review* 19, 355–357. [https://doi.org/10.1016/s0389-4304\(98\)00033-2](https://doi.org/10.1016/s0389-4304(98)00033-2)

- M.S. Shehata, S.M. Abdel Razek, 2011. Experimental Investigation of Diesel Engine Performance and Emission Characteristics Fuelled by Jojoba/Diesel Blend and Sunflower Oil. *Fuel*.
- N. Nagarajan, 2020. Comparative study of experimental and simulation of Neem Oil Methyl Ester and Its Blends with Diesel in a Conventional DI Diesel Engine.
- Nithya, S., Chinnathambi, A., Ali Alharbi, S., Minofar, B., 2024. Carbon neutrality with ammonia: An analysis of its feasibility as a fuel for diesel engines fuelled with *spirulina* microalgae and oxygenated additives. *Fuel* 361, 130628. <https://doi.org/10.1016/j.fuel.2023.130628>
- No, S.-Y., 2017. Application of straight vegetable oil from triglyceride based biomass to IC engines – A review. *Renewable & Sustainable Energy Reviews* 69, 80–97. <https://doi.org/10.1016/j.rser.2016.11.007>
- Nugroho, A, Lestari, W, 2018. Characterization of Deposits in Diesel Engines Using Palm Oil-Based Biodiesel. *Journal of Engine Performance and Emission Control*.
- Nugroho, I., Putri, N., Adji, J.E.P., Nur, S.R., Sekarningrum, N.A., 2024. Tinjauan Kritis Kemampuan Fourier Transform Infrared Spectroscopy (FTIR) dalam Analisis dan Karakterisasi Senyawa Obat. *Jurnal Ilmiah Wahana Pendidikan* 10, 332–344. <https://doi.org/10.5281/zenodo.13777154>
- Ooi, J.B., Chan, X.L., Jalilantabar, F., Tan, B.T., Wang, X., Song, C.P., Chiong, M.-C., Hung, Y.M., 2024. Experimental study of quaternary blends with diesel/palm-oil biodiesel/ethanol/diethyl ether for optimum performance and emissions in a light-duty diesel engine using response surface methodology. *Energy* 301.
- Orian Welling, Welling, O., 2009. Thin fuel film reactor testing for characterization of diesel fuel deposit formation.
- Philip Kristanto, 2015. *Motor Bakar Torak: Teori dan Aplikasinya*.
- Prasetyo, A, 2020. Effect of Biodiesel Fuel on Diesel Engine Injector Deposits. *Journal of Mechanical Engineering Research*.
- Putra, F, Nugroho, T, Siregar, A, 2021. Analisis Emisi Gas Buang Mesin Diesel dengan Campuran Biodiesel Minyak Jarak Pagar. *Jurnal Teknik Energi*.
- Qian, J., Yun, Z., Shi, H., 2010. Cogeneration of biodiesel and nontoxic cottonseed meal from cottonseed processed by two-phase solvent extraction. *Energy Conversion and Management* 51, 2750–2756. <https://doi.org/10.1016/j.enconman.2010.06.011>
- Rachman, H, Kusuma, D, 2019. Carbon Deposit Formation in Diesel Engines Using Biodiesel from *Jatropha* Oil. *Energy and Fuel Research Journal*.
- Rahman, H., Suryanto, T, Hidayat, R, 2020. Analisis Emisi Gas Buang pada Mesin Diesel dengan Campuran Biodiesel Minyak Jelantah. *Jurnal Teknik Mesin Indonesia*.
- R.D. Misra, Misra, R.D., Murthy, M.S., 2010. Straight vegetable oils usage in a compression ignition engine-A review. *Renewable & Sustainable Energy Reviews* 14, 3005–3013. <https://doi.org/10.1016/j.rser.2010.06.010>
- Rincón, L., Jaramillo, J.J.A., Cardona, C.A., 2014. Comparison of feedstocks and technologies for biodiesel production: An environmental and techno-economic evaluation. *Renewable Energy* 69, 479–487. <https://doi.org/10.1016/j.renene.2014.03.058>
- Rovida Hartantrie, 2022. *Motor Bakar Pada Mesin Konversi Energi*.
- Roziqi, A.K., Rahmadianto, F., 2022. Analisa Variasi Penambahan Zat Aditif Pada Pertalite Terhadap Prestasi Mesin Serta Emisi Gas Buang Motor Bensin.
- Russo, D., Dassisti, M., V. Lawlor, Lawlor, V., Olabi, A.G., 2012. State of the art of biofuels from pure plant oil. *Renewable & Sustainable Energy Reviews* 16, 4056–4070. <https://doi.org/10.1016/j.rser.2012.02.024>

- Santoso, W, 2021. Effects of Coconut Oil Biodiesel Blends on Carbon Deposit Formation in Diesel Engines. *Applied Energy Journal*.
- Santoso, W, Wijayanti, R, 2022. Evaluasi Emisi Mesin Diesel dengan Biodiesel Berbasis Mikroalga. *Jurnal Teknik Lingkungan dan Energi*.
- Shahabuddin, M., Liaquat, A.M., Masjuki, H.H., Kalam, M.A., Mofijur, M., 2013. Ignition delay, combustion and emission characteristics of diesel engine fueled with biodiesel. *Renewable and Sustainable Energy Reviews* 21, 623–632. <https://doi.org/10.1016/j.rser.2013.01.019>
- Sholihah, A., Priambodo, T.B., Aziz, I., Masfuri, I., 2023. Pengaruh Temperatur pada Rendemen dan Karakteristik Produk pada Perengkahan Katalitik Limbah Tar Batubara menjadi Bahan Bakar Cair 2.
- Sivanathan Sivalakshmi, Thangavel Balusamy, 2011. Experimental Investigation on a Diesel Engine Using Neem Oil and its Methyl Ester. *Thermal Science*.
- Sutanto, A., Wijaya, B., 2021. Pengaruh Penggunaan Biodiesel Terhadap Emisi Mesin Diesel. *Jurnal Energi Terbarukan*.
- Sylwia Pasieczna Patkowska, 2024. Application of Fourier Transform Infrared (FTIR) Spectroscopy in Characterization of Green Synthesized Nanoparticles [WWW Document]. URL https://www.mdpi.com/1420-3049/30/3/684?utm_source=chatgpt.com (accessed 2.11.26).
- Trisnaliani, L., Sari, I.M., 2018. PROSES PRODUKSI BIODIESEL DARI MINYAK JELANTAH MENGGUNAKAN MICROWAVE HYDRO DISTILLATION DAN SEPARASI TEGANGAN TINGGI 9.
- Tsai, M.-S., Chang, S.-L., 2013. Taiwan's GHG mitigation potentials and costs: An evaluation with the MARKAL model. *Renewable and Sustainable Energy Reviews* 20, 294–305. <https://doi.org/10.1016/j.rser.2012.12.007>
- World Energy Outlook 2023, n.d.
- Xiong, J., Yan, C., Liu, W., Guo, X., Ma, J., Yi, W., Han, M., 2021. Insights into the principles, design methodology and applications of electrocatalysts towards hydrogen evolution reaction. *Energy Reports* 7, 8577–8596. <https://doi.org/10.1016/j.egyr.2021.04.017>
- Youngchul Ra, Ra, Y., Rolf D. Reitz, Reitz, R.D., M. W. Jarrett, Jarrett, M.W., T. P. Shyu, Shyu, T.P., 2006. Effects of Piston Crevice Flows and Lubricant Oil Vaporization on Diesel Engine Deposits. <https://doi.org/10.4271/2006-01-1149>
- Yusmady Mohamed Arifin, Arifin, Y.M., Tomohiko Furuhashi, Furuhashi, T., Masahiro Saito, Saito, M., Masataka Arai, Arai, M., 2008. Diesel and bio-diesel fuel deposits on a hot surface. *Fuel* 87, 1601–1609. <https://doi.org/10.1016/j.fuel.2007.07.030>
- Yusuf, R, Prasetyo, L, 2023. Dampak Penggunaan Biodiesel Minyak Nyamplung terhadap Emisi Mesin Diesel. *Jurnal Rekayasa Energi dan Mesin*.
- Zaenal Arifin, M.T, Z.A., M.T., 2009. Pengendalian Polusi Kendaraan.
- Zhang, L., Peng, Y., Zhou, Y., Wu, Y., Le, T., 2022. A novel fluorescent probe based on white pitaya peel-derived carbon dots for highly selective and sensitive determination of sulfaquinoxaline in food. *International Journal of Food Science & Technology* 58. <https://doi.org/10.1111/ijfs.16211>
- B. B. Саломатов, Salomatov, V.V., Salomatov, V.V., Kuznetsov, Geniy V., Kuznetsov, Genii V., Syrodoy, S.V., 2017. The comparative analysis of heat transfer efficiency in the conditions of formation of ash deposits in the boiler furnaces, with taking into account the crystallization of slag during combustion of coal and water-coal fuel 891, 012240. <https://doi.org/10.1088/1742-6596/891/1/012240>