DAFTAR PUSTAKA

Abdulloh, A., Rahmah, U., Sakti, S.C.W., Widati, A.A., Permana, A.J., Prasetya, R., Ahmad, M.A., and Fahmi, M.Z., 2022, Ion impregnation effect of Fe, Cu, Cr-attributed mordenite on stearic acid cracking, *Indo. J. of Chem.*, 3(22), 780–790.

Araújo, P.H.M., Maia, A.S., Cordeiro, A.M.T.M., Gondim, A.D., and Santos, N.A., 2019, Catalytic deoxygenation of the oil and biodiesel of licuri (syagrus coronata) to obtain n-alkanes with chains in the range of biojet fuels, *ACS Publications*, 14(4), 15849–15855.

Arun, N., Nanda, S., Hu, Y., and Dalai A.K., 2022, Undefined hydrodeoxygenation of oleic acid using γ-Al_2O_3 supported transition metallic catalyst systems: insight into the development of novel FeCu/γ-Al_2O_3 catalyst, *Molecular Catalysis*, 523, 11152*6.*

Balogun, S. A., Ghazali, I., Mohammed, A. T., Hermansyah, D., Amanah, A., and Kurnia, M. T., 2022, Renewable aviation fuel: review of bio-jet fuel for aviation industry, *Eng. Sci. Letter*, 1(1), 7-11.

Baroutaji, A., Wilberforce, T., Ramadan, M., and Olabi, A.G., 2019, Comprehensive investigation on hydrogen and fuel cell technology in the aviation and aerospace sectors, *Renew. and Sustain. E. Rev.*, 106, 31–40.

Barroso-Martín, I., Ballesteros-Plata, D., Infantes-Molina, A., Olga Guerrero-Pérez, M., Santamaría-González, J., and Rodríguez-Castellón, E., 2022, An overview of catalysts for the hydrodeoxygenation reaction of model compounds from lignocellulosic biomass, *IET Renew. Power Generation*, 14(16), 3009–3022.

Benavides, A., Benjumea, P., Cortés, F.B., and Ruiz, M.A., 2021, Chemical composition and low-temperature fluidity properties of jet fuels, *Processes*, 7(9), 1184.

El-Araby, R., Abdelkader, E., El Diwani, G., and Hawash, S.I., 2020, Bio-aviation fuel via catalytic hydrocracking of waste cooking oils, *Bulletin of the National Research Centre*, 44, 1–9.

Fani, K., Lycourghiotis, S., Bourikas, K., and Kordouli, E., 2021, Biodiesel upgrading to renewable diesel over nickel supported on natural mordenite catalysts, *Ind. Eng. Chem. Res.*, 51(60), 18695–18706.

Gao, Y., Sun, W., Yang, W., and Li, Q., 2017, Creation of Pd/Al_2O_3 Catalyst by a spray process for fixed bed reactors and its effective removal of aqueous bromate, *Sci. Reports*, 1(7), 41797.

Guzman, A., Torres, J.E., Prada, L.P., and Nuñez, M.L., 2010, Hydroprocessing of crude palm oil at pilot plant scale, *Catal Today*, 1– 2(156), 38–43.

Hartanto, D., Wardhana, D. O. K., Utomo, W. P., and Ni'mah, Y. L., 2019, The effect of alkaline treatment on the properties of hierarchical ZSM-5 prepared by post-synthesis desilication, *Rasayan J. of Chem.*, 2(12), 939-946.

Haryono, M. T., Solihudin, S., Ernawati, E., and Pramana, S., 2019, Limbah cair industri minyak goreng sawit sebagai bahan baku pembuatan biodiesel, *EduChemia (Jurnal Kimia dan Pendidikan)*, 1(4), 36-48.

Hasanudin, H., Asri, W.R., Said, M., Hidayati, P.T., Purwaningrum, W., Novia, N., and Wijaya, K., 2022, Hydrocracking optimization of palm oil to bio-gasoline and bio-aviation fuels using molybdenum nitride-bentonite catalyst, *RSC Adv*, 26(12), 16431–16443.

Hossain, M.Z., Chowdhury, M.B.I., Jhawar, A.K., Xu, W.Z., Biesinger, M.C., and Charpentier, P.A., 2018, Continuous hydrothermal decarboxylation of fatty acids and their derivatives into liquid hydrocarbons using Mo/Al_2O_3 Catalyst, *ACS Omega*, 6(3), 7046–7060.

Hutami, R., Fortuna Ayu, D., Teknologi Pangan dan Gizi, J., Km, W., and Baru Panam, S., 2015, Pembuatan dan karakterisasi metil ester dari minyak goreng kelapa sawit komersial, *J. Agroindustri Halal*, 2(1), 124–131.

Khowatimy, F.A., Priastomo, Y., Febriyanti, E., Riyantoko, H., and Trisunaryanti, W., 2014, Study of waste lubricant hydrocracking into fuel fraction over the combination of Y-zeolite and ZnO catalyst, *Proce. Environ. Sci.*, 20, 225–234.

Kim, T.H., Lee, K., Kim, M.Y., Chang, Y.K., and Choi, M., 2018, Effects of fatty acid compositions on heavy oligomer formation and catalyst deactivation during deoxygenation of triglycerides, *ACS Sustain. Chem. Eng.*, 12(6), 17168–17177.

Kumar, P., Verma, D., Sibi, M.G., Butolia, P., and Maity, S.K., 2022, Hydrodeoxygenation of triglycerides for the production of green diesel: Role of heterogeneous catalysis, *Hydrocarbon Biorefinery*, 97–126.

Latisya, S., 2022, Teknologi proses untuk produksi biodiesel berbasis minyak kelapa sawit, *WARTA Pusat Penelitian Kelapa Sawit*, 2(27), 78-91.

Lee, K., Lee, M. E., Kim, J. K., Shin, B., and Choi, M., 2019, Single-step hydroconversion of triglycerides into biojet fuel using CO-tolerant PtRe catalyst supported on USY, *J. of Catal.*, 379, 180–190.

Lim, S.Y., Mutalib, M.S.A., Khaza'ai, H., and Chang, S.K., 2018, Detection of fresh palm oil adulteration with recycled cooking oil using fatty acid composition and FTIR spectral analysis, *Int. J. Food Prop.*, 1(21), 2428–2451.

Lin, C. H., Chen, Y. K., and Wang, W. C., 2020, The production of bio-jet fuel from palm oil derived alkanes, *Fuel*, 260, 116345.

Lin, T. J., Meng, X., and Shi, L., 2014, Ni-exchanged Y-zeolite: An efficient heterogeneous catalyst for acetylene hydrocarboxylation, *Applied Catalysis A: General*, 485, 163–171.

Luque-Álvarez, L.A., González-Arias, J., Romero-Sarria, F., Reina, T.R., Bobadilla, L.F., and Odriozola, J.A., 2024, Mechanistic insights into methanol carbonylation to methyl acetate over an efficient organic template-free Cu-exchanged mordenite, *Catal. Sci. Tech.*, 1(14), 128–136.

Mancini, A., Imperlini, E., Nigro, E., Montagnese, C., Daniele, A., Orrù, S., and Buono, P., 2015, Biological and nutritional properties of palm oil and palmitic acid: Effects on health, *Molecules*, 9(20), 17339–17361.

Mante, O.D., Butcher, T.A., Wei, G., Trojanowski, R., and Sanchez, V., 2015, Evaluation of biomass-derived distillate fuel as renewable heating oil, *Energy and Fuels*, 10(29), 6536–6543.

Mohammad, M., Kandaramath Hari, T., Yaakob, Z., Chandra Sharma, Y., and Sopian, K., 2013, Overview on the production of paraffin based-biofuels via catalytic hydrodeoxygenation, *Renew. and Sustain. E. Reviews*, 22, 121–132.

Mosallanejad, S., Dlugogorski, B.Z., Kennedy, E.M., and Stockenhuber, M., 2018, On the chemistry of iron oxide supported on γ-alumina and silica catalysts, *ACS Omega*, 3, 5362–5374.

Mosayebi, A. and Abedini, R., 2014, Partial oxidation of butane to syngas using nano-structure Ni/zeolite catalysts, *J. of Indust. and Eng. Chem.*, 4(20), 1542–1548.

Murugappan, K., Anderson, E.M., Teschner, D., Jones, T.E., Skorupska, K., and Román-Leshkov, Y., 2018, Operando NAP-XPS unveils differences in MoO_3 and Mo_2C during hydrodeoxygenation, *Nature Catalysis*, 12(1), 960–967.

Nugroho, A. P. P., Fitriyanto, D., and Roesyadi, A., 2014, Pembuatan biofuel dari minyak kelapa sawit melalui proses hydrocracking dengan katalis Ni-Mg/γ-Al_2O_3, *Jurnal Teknik ITS*, 2(3), F117-F121.

Nurjannah, N., Roesyadi, A., and Prajitno, D. H., 2010, Konversi katalitik minyak sawit untuk menghasilkan biofuel menggunakan silika alumina dan HZSM-5 sintesis, *Reaktor*, 1(13), 37-43.

Patrylak, L. K., Voloshyna, Y. G., Pertko, O. P., Yakovenko, A. V., Povazhnyi, V. A., and Melnychuk, O. V., 2021, Investigation of the features of nickel-modified mordenite zeolites, *Scientific and Tech. News*, 30, 59–66.

Permata, M.L., Trisunaryanti, W., Falah, I.I., Hapsari, M.T., and Fatmawati, D.A., 2020, The effect of nickel content impregnated on zeolite toward catalytic activity and selectivity for hydrotreating of cashew nut shell liquid oil, *Rasayan J. of Chem.*, 1(13), 772–779.

Rahmawati, Z., Santoso, L., McCue, A., Azua Jamari, N.L., Ninglasari, S.Y., Gunawan, T., and Fansuri, H., 2023, Selectivity of reaction pathways for green diesel production towards biojet fuel applications, *RSC Adv*, 20(13), 13698–13714.

Rakmae, S., Osakoo, N., Pimsuta, M., Deekamwong, K., Keawkumay, C., Butburee, T., Faungnawakij, K., Geantet, C., Prayoonpokarach, S., Wittayakun, J., and Khemthong, P., 2020, Defining nickel phosphides supported on sodium mordenite for hydrodeoxygenation of palm oil, *Fuel Processing Technology*, 198, 106236.

Rodriguez, K., Pedroso, M., Harris, A., Garg, S., Hine, D., Köpke, M., Schenk, G., and Marcellin, E., 2023, Gas fermentation for microbial sustainable aviation fuel production, *Microbiol. Aust.*, 1(44), 31–35.

Rohim, A.M., Marwoto, P., Priatmoko, S., and Syifa, A., 2023, Analysis FTIR test, viscosity, density, acid number, and organoleptic in bulk cooking oil with packaged cooking oil, *JPP IPA*, 5(9), 2613–2618.

Sabarman, J.S., Legowo, E.H., Widiputri, D.I., and Siregar, A.R., 2019, Bioavtur synthesis from palm fatty acid distillate through hydrotreating and hydrocracking processes, *Indo. J. of Energy*, 2(2), 99–110.

Sabri, M. A., Bharath, G., Hai, A., Haija, M. A., Nogueira, R. P., and Banat, F., 2022, Synthesis of molybdenum-cobalt nanoparticles decorated on date seed-derived activated carbon for the simultaneous electrochemical hydrogenation and oxidation of furfural into fuels, *Fuel Processing Tech.*, 238, 107525.

Saviola, A.J., Wijaya, K., Syoufian, A., Saputri, W.D., Saputra, D.A., Aziz, I.T.A., and Oh, W.C., 2024, Hydroconversion of used palm cooking oil into bio-jet fuel over phosphoric acid-modified nano-zirconia catalyst, *Case Studies in Chemical and Environmental Engineering*, 9, 100653.

Schreiber, M.W., Rodriguez-Niño, D., Gutiérrez, O.Y., and Lercher, J.A., 2016, Hydrodeoxygenation of fatty acid esters catalyzed by Ni on nano-sized MFI type zeolites, *Catal. Sci. Tech.*, 22(6), 7976–7984.

Serhan, M., Jackemeyer, D., Long, M., Sprowls, M., Perez, I. D., Maret, W., Chen, F., Tao, N., and Forzani, E., 2020, Total iron measurement in human serum with a novel smartphone-based assay, *IEEE Journal of Translational Engineering in Health and Medicine*, 8, 1-9.

Sihombing, J.L., Herlinawati, H., Pulungan, A.N., Simatupang, L., Rahayu, R., and Wibowo, A.A., 2023, Effective hydrodeoxygenation bio-oil via natural zeolite supported transition metal oxide catalyst, *Arabian J. of Chem*, 6(16), 104707.

Siswahyu, A., and Hendrawati, T. Y., 2014, Pemilihan prioritas bahan baku bioavtur di Indonesia dengan metode Analytical Hierarkhi Process (AHP), *Jurnal Teknologi*, 2(6), 137-143.

Su, B.L. and Norberg, V., 2001, Quantitative characterisation of H-Mordenite zeolite structure by infrared spectroscopy using benzene adsorption, *Colloids Surf A Physicochem Eng Asp*, 187–188, 311–318.

Taufik, M., & Seftiono, H., 2018, Karakteristik fisik dan kimia minyak goreng sawit hasil proses penggorengan dengan metode deep-fat frying, *J. Tek.*, 2(10), 123-130.

Thommes, M., Kaneko, K., Neimark, A. V., Olivier, J.P., Rodriguez-Reinoso, F., Rouquerol, J., and Sing, K.S.W., 2015, Physisorption of gases, with special reference to the evaluation of surface area and pore size distribution (IUPAC Technical Report), *Pure and Applied Chemistry*, 9–10(87), 1051–1069.

Trisunaryanti, W., Larasati, S., Bahri, S., Ni'mah, Y.L., Efiyanti, L., Amri, K., Nuryanto, R., and Sumbogo, S.D., 2020, Performance comparison of Ni-Fe loaded on NH_2-functionalized mesoporous silica and beach sand in the hydrotreatment of waste palm cooking oil, *J. Env. Chem. Eng.*, 6(8), 104477.

Trisunaryanti, W., Triwahyuni, E., and Sudiono, S., 2005, Preparation, characterizations and modification of Ni-Pd/natural zeolite catalysts, *Ind. J. of Chem.*, 1(5), 48-53.

Trisunaryanti, W., Triyono, Armunanto, R., Hastuti, L.P., Ristiana, D.D., and Ginting, R.V., 2018, Hydrocracking of α-cellulose using Co, Ni, and Pd supported on mordenite catalysts, *Indo. J. of Chem.*, 1(18), 166–172.

Trisunaryanti, W., Triyono, Wijaya, K., Kartini, I., Purwono, S., Rodiansono, Mara, A., and Budiansyah, A., 2023, Preparation of Mo-impregnated mordenite catalysts for the conversion of refined kernel palm oil into bioavtur, *Communications in Sci. and Tech.*, 2(8), 226–234.

Triyono, Trisunaryanti, W., Purbonegoro, J., and Aksanti, S.I., 2024, Effect of cobalt impregnation methods on Parangtritis sand towards catalysts activity in hydrocracking of degummed low-quality Ujung Kulon Malapari oil into biohydrocarbons, *Reac. Kinetics, Mechanisms and Catal.*, 1(137), 303–321.

Vásquez, M.C., Silva, E.E., and Castillo, E.F., 2017, Hydrotreatment of vegetable oils: A review of the technologies and its developments for jet biofuel production, *Biomass Bioenergy*, 105, 197–206.

Veriansyah, B., Han, J.Y., Kim, S.K., Hong, S.-A., Kim, Y.J., Lim, J.S., Shu, Y.W., Oh, S.G., and Kim, J., 2012, Production of renewable diesel by hydroprocessing of soybean oil: Effect of catalysts, *Fuel*, 94, 578–585.

Visiamah, F., Trisunaryanti, W., and Triyono, 2024, Microwave-assisted coconut wood carbon-based catalyst impregnated by Ni and/or Pt for bio-jet fuel range hydrocarbons production from Calophyllum inophyllum L. oil using modified-microwave reactor, *Case Studies in Chem. and Env. Eng.*, 9, 100722.

Wang, M., Chen, M., Fang, Y., and Tan, T., 2018, Highly efficient conversion of plant oil to bio-aviation fuel and valuable chemicals by combination of enzymatic transesterification, olefin cross-metathesis, and hydrotreating, *Biotech. Biofuels*, 11, 1–9.

Wargadalam, V.J., Aminuddin, Syafei, M.H.G., and Enrico, J., 2023, Kinetic study of palm oil catalytic cracking over a zeolite-based catalyst, *J. Penelitian Hasil Hutan*, 2(40), 79–86.

Why, E.S.K., Ong, H.C., Lee, H.V., Chen, W.H., Asikin-Mijan, N., and Varman, M., 2021, Conversion of bio-jet fuel from palm kernel oil and its blending effect with jet A-1 fuel, *Energy Convers Manag*, 243, 114311.

Why, E.S.K., Ong, H.C., Lee, H.V., Gan, Y.Y., Chen, W.H., and Chong, C.T., 2019, Renewable aviation fuel by advanced hydroprocessing of biomass: Challenges and perspective, *Energy Convers Manag*, 243, 114311.

Yang, J., Xin, Z., He, Q., Corscadden, K., and Niu, H., 2019, An overview on performance characteristics of bio-jet fuels, *Fuel*, 237, 916–936.

Yudhistira, F.H. and Wibowo, A.A., 2022, Green diesel: bahan bakar cair terbarukan pengganti biodiesel, 4(8), 979–987.

Yusniyanti, F., Trisunaryanti, W., and Triyono, 2021, Acid-alkaline treatment of mordenite and its catalytic activity in the hydrotreatment of bio-oil, *Indo. J. of Chem.*, 1(21), 37–45.

Zhang, Z., Wang, Q., and Zhang, X., 2019, Hydroconversion of waste cooking oil into bio-jet fuel over NiMo/SBUY-MCM-41, *Catalysts*, 5(9), 466.

Zhu, X., Cho, H., Pasupong, M., and Regalbuto, J.R., 2013, Charge-enhanced dry impregnation: A simple way to improve the preparation of supported metal catalysts, *ACS Catalysis*, 4(3), 625–630.

Zhu, X., Xiao, J., Wang, C., Zhu, L., and Wang, S., 2022, Global warming potential analysis of bio-jet fuel based on life cycle assessment, *Carbon Neutrality*, 1(1), 25.