



DAFTAR PUSTAKA

- Ackley, M.W., Rege, S.U., dan Saxena, H., 2003, Application of Natural Zeolite in the Purification and Separation of Gases, *Journal of Microporous and Mesoporous Materials*, 61, 25-42.
- Ahmad, H.S., Bialangi, N., dan Salimi, Y.K., 2016, Pengolahan Minyak Jelantah Menjadi Biodiesel, *Jambura Journal of Educational Chemistry*, 11(2), 204-214.
- Antoni, Geman, R., Tjondro, R.T., dan Anggono, J., 2013, Effects of Calcination Temperature of LUSI Mud on the Compressive Strength of Geopolymer Mortar, *Advanced Materials Research*, 626, 224-228.
- Brennan, L., and Owende, P., 2010, Biofuels from microalgae—A review of technologies for production, processing, and extractions of biofuels and co-products, *Renewable and Sustainable Energy Reviews*, 14(2), 557-577.
- Chew, T.L. dan Bhatia, S., 2008, Catalytic Processes towards the Production of Biofuels in a Palm Oil and Oil Palm Biomass-based Biorefinery, *Bioresource Technology*, 99(17), 7911-7922.
- Deraz, N.M., 2018, Importance of Catalyst Preparation, *J. Ind.. Environ. Chem.*, 2(1), 16-18.
- El-Sabagh, S.M., Keera, S.T., dan Taman, R., 2010, The Characterization of Biodiesel Fuel from Waste Frying Oil, *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 33(5), 401-409.
- Fadillah, G., Fatimah, I., Sahroni, I., Musawwa, M.M., Mahlia, T.M.I., dan Muluk, O., 2021, Recent Progress in Low-Cost Catalysts for Pyrolysis of Plastic Waste to Fuels, *Catalysts*, 11(7), 837.
- Grams, J., dan Ruppert, A.M., 2021, Catalyst Stability —Bottleneck of Efficient Catalytic Pyrolysis, *Catalysts*, 11(2), 265.
- Gregg, S.J. dan Sing, K.S.W., 1982, *Adsorption, Surface Area and Porosity*, Edisi ke-2, Academic Press, London.
- Hadjarningrum, Siti A. Nur, 2016, Sintesis dan Karakterisasi Katalis Ni- NH₂/Silika Mesopori dari Silika Lumpur Sidoarjo dan Cetakan Gelatin Tulang Sapi



untuk Konversi Minyak Goreng Bekas Menjadi Biofuel, *Tesis*, Jurusan Kimia FMIPA UGM, Yogyakarta.

Hasan, M. H., Mahlia, T. M. I., and Nur, H., 2001, A review on energy scenario and sustainable energy in Indonesia, *Renewable and Sustainable Energy Reviews*, 16(4), 2316–2328.

Hasanudin, Rachmat, A., 2016, Production of Biodiesel from Esterification of Oil Recovered from Palm Oil Mill Effluent (POME) Sludge using Tungstated-Zirconia Composite Catalyst, *Indonesian Journal of Fundamental and Applied Chemistry*, 1(2), 42-46.

Idem, R.O., Katikaneni, S.P.R., dan Bakhs, N.N., 1997, Catalytic Conversion of Canola Oil to Fuels and Chemicals: Role of Catalyst Acidity, Basicity, and Shape Selectivity on Product Distribution, *Fuel ProcessTech*, 51, 101-125.

Iglesia, E., 1997, Design, Synthesis, and Use of Cobalt-based Fischer-Tropsch Synthesis Catalysts, *Applied Catalysis A: General*, 161(1-2), 59-78.

IUPAC, 1985, Reporting Physisorption Data for Gas/Solid Systems with Special to the Determination of Surface Area and Porosity, *Pure Appl. Chem.*, 57, 605-619.

Kandel, K., Frederickson, C., Smith, E.A., Lee, Y.J., and Slowing, I.I., 2013, Bifunctional adsorbent-catalytic nanoparticles for the refining of renewable feedstocks, *ACS Catal.*, 3, 2750–2758.

Kusumastuti, H., Trisunaryanti, W., Falah I.I., and Marsuki, M.F., 2018, Synthesis of Mesoporous Silica-Alumina from Lapindo Mud as a Support of Ni and Mo Metals Catalysts for Hydrocracking of Pyrolyzed α -Cellulose, *Rasayan Journal of Chemistry*, 11(2), 522-530.

Mustafa Al Bakri, A.M., Rafiza, A.R., Hardjito, D., Kamarudin, dan Nizar, I.K., 2012, Characterization of LUSI Mud Volcano as Geopolymer Raw Material, *Advanced Material Research*, 548, 82-86.

Muthukumaran, N., Saravanan, C.G., Prasama Raj Yadav, S., Vallinayagam, R., Vedharaj, W.L., dan Roberts, 2015, Synthesis of Cracked Calophyllum inophyllum Oil Using Fly Ash Catalyst for Diesel Engine Application, *Fuel*, 155, 68-76.



- Nandiyanto, A. B. D., Kim, S.-G., Iskandar, F., and Okuyama, K., 2009, Synthesis of spherical mesoporous silica nanoparticles with nanometer-size controllable pores and outer diameters, *Microporous and Mesoporous Materials*, 120(3), 447–453.
- Neupane, D., 2023, Biofuels from Renewable Sources, a Potential Option for Biodiesel Production, *Bioengineering*, 10(1), 1-29.
- Nurudin, M.F., Bayuaji, R., Masilamani, M.B., Biyanto, T.R., 2010, Sidoarjo Mud: A Potential Cement Replacement Material, *Civil Engineering Dimension*, 12(1), 18-22.
- Ochoa-Hernández, C., Yang, Y., Pizzaro, P., De La Peña O'Shea, V. A., Coronando, J. M., and Serrano, D. P., 2013, Hydrocarbon production through hydrotreating of methyl esters over Ni and Co supported on SBA15 and Al-SBA-15, *Catal. Today*, 210, 81-88.
- Ong, Y.K. dan Bhatia, S., 2010, The Current Status and Perspectives of Biofuel Production via Catalytic Cracking of Edible and Non Edible Oils, *Energy*, 35, 111-119.
- Pandey, A., Larroche, C., Ricke, S.C., Dussap, C.-G., and Gnansounou, E., 2011, Biofuels : Alternative Feedstocks and Conversion Processes, *Academic Press*, Oxford.
- Prabasari, I.G., Sarip, R., Rahmayani, S., dan Nazarudin, 2019, Catalytic of Used Cooking Oil Using Cobalt-Impregnated Carbon Catalysts, *Makara Journal of Science*, 23(3), 162-168.
- Rezgui, Y. dan Guemini, M., 2005, Effect of Acidity and Metal Content on the Activity and Product Selectivity for n-Decane Hydroisomerization and Hydrocracking Over Nickel-tungsten Supported on Silica-Alumina Catalysts, *Applied Catalysis A: General*, 282, 45-53.
- Sa'diyah, K., Syarwani, M., dan Hadiantoro, S., 2017, Adsorption of Nickel in Nickel Sulphate Solution (NiSO_4) by Lapindo Mud, *JBAT*, 6(1), 39-44.
- Salim, 2000, Energy reserve, energy demand and future technology. *Onedayworkshop on environmentally friendly technology for the future*, Jakarta.



- Saraswathi, P. and Makeswari, M., 2017, Preparation and Characterization of Alumina and Silica Modified Chitosan, *Rasayan Journal of Chemistry*, 10(3), 759-765.
- Singho, N. D. and Johan, M. R., 2012, Complex impedance spectroscopy study of silica nanoparticles via sol-gel method, *International Journal of Electrochemical Science*, 7, 5604-5615.
- Solikhah, M.D., Paryanto, I., dan Barus, B.R., 2009, Efek Kualitas Minyak Jelantah terhadap Harga Proses Produksi dan Kualitas Biodiesel, *Seminar Nasional Teknik Kimia Indonesia-SNTKI*, Bandung.
- Sutarno, Arryanto. Y., and Wigati, S., 2003, The influence of Si/Al Mole reaction of Precursor Solution on The Structural Properties of MCM-41 from Fly Ash, *Indones. J. Chem.*, 3, 126-134.
- Tanabe, K., Misono, M., Ono, Y., dan Hattori, H., 1989, *New Solid Acids and Bases*, Elsevier B.V., Amsterdam.
- Tavasoli, A., Taghavi, S., Tabyar, S., dan Karimi, S., 2014, Enhancement of Ruthenium-promoted Co/CNT Nanocatalyst Performance Using Microemulsion Technique, *Industrial Journal of Industrial Chemistry*, 5(1), 1-14.
- Thommes, M., Kaneko, K., Neimark, A.V., Olivier, J.P., Rodriguez-Reinoso, F., Rouquerol, J., dan 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 Appl. Chem.*, 87(9-10), 1051-1069.
- Trisunaryanti, W., Tri wahyuni, E., dan Sudiono, S., 2005, Preparasi Modifikasi dan Karakterisasi Katalis Ni-Mo/Zeolit Alam dan Mo-Ni/Zeolit Alam, *Teknoin*, 10(4), 269-282.
- Trisunaryanti, W., 2015, *Material Katalis dan Karakternya*, Universitas Gadjah Mada Press, Yogyakarta.
- Trisunaryanti, W., Triyono, Santoso, N.R., Larasati, S., Paramesti, C., dan Fatmawati, D.A., 2021, Enhancement of Cobalt Concentration Supported on Mesoporous Silica towards the Characteristics and Activities of Catalysts



dor the Conversion of Waste Coconut Oil into Gasoline and Diesel Oil,
Indones. J. Chem., 21(3), 527-536.

Ulfindrayani, I. F., Fanani, N., A'yuni, Q., Ikhlas, N., Lumban, B., Gaol, dan Lestari, D., 2019, Pengaruh Perbedaan Preparasi Lumpur Lapindo terhadap Kandungan Senyawanya, *Prosding*, 235-239.

Wang, A., Li, J., dan Zhang, T., 2018, Heterogeneous Single-atom Catalysis, *Nature Reviews Chemistry*, 2, 65-81.

Wang, J.J., Wang, X.K., dan Sha, Z.L., 2012, Demulsification of Crude Oil Emulsion using Propylene Oxide-Ethylene Oxide Block Copolymer, *Advanced Materials Research*, 361-363, 598-602.