DAFTAR PUSTAKA

Ahda, M., Sutarno, dan Kunarti, S.E., 2015, Pengaruh Waktu Hidrotermal dan TMAOH dalam Sintesis Langsung MCM-41, *Pharmaciana*, 5(1), 1-8.

Arifin dan Latifah, 2015, Sintesis Biodiesel dari Minyak Goreng Bekas dengan Menggunakan Katalis Zeolit Alam Termodifikasi*, Indo. J. Chem. Sci.*, 4(2),138-143.

Balat, M., and Balat H., 2008, A Critical Review of Bio-diesel as a Vehicular Fuel, *Energy Conversion and Management*, 49, 2727-2741.

Beck, J.S., Vartuli, J., Roth, W.J., Leonowicz, M.E., Kresge, C.T., Schmitt, K.D., Chu, C.T.W., Olson, D.H., and Sheppard, E.W., 1992, A New Family of Mesoporus Molecular Sieves Prepared with Liquid Crystal Templates, *J. Am. Chem. Soc.,* 114(27), 10834-10843.

Bhagiyalaksmi, M., Yun, L.J., Anuradha, R., and Jang, T.H., 2009, Utilization of Rice Husk Ash as Silica Source for Synthesis of Mesoporous Silicas and their Application to CO_2 Adsorption through TREN/TEPA Grafting, *J. Hazard. Mat*., 175, 928-938.

Bhoware, S.S. and Sigh, A.P., 2007, Characterization and Catalytic Activity of Cobalt Containing MCM-41 Prepared by Direct Hydrothermal, Grafting and Immobilization Methods, *J. Mol. Catal. A: Chem.*, 266, 118-130.

Cancaki, M., and Gerpen, J.V., 2001, Biodiesel Production from Oils and Fats with High Free Fatty Acids, *Trans ASAE*, 44(6), 1429-1436.

Cao, J., Wu, Y., Jin, Y., Zilihan, P., and Huang, W., 2014, Response Surface Methodology Approach for Optimization of the Removal of Chromium(VI) by NH_2-MCM-41, *J. Taiwan Inst. Chem. Eng.,* 45, 860-868.

Fadhil, A.B., Aziz, A.M., and Al-Tamer, M.H., 2016, Biodiesel Production from Silybum Marianum L. Seed Oil with High FFA Content Using Sulfonated Carbon Catalyst for Esterification and Base Catalyst for Transesterification, *Energy Conversion and Management*, 108, 255-265.

Fadli, A.F., Tjahjanto, R.T., dan Darjito, 2013, Ekstraksi Silika dalam Lumpur Lapindo menggunakan Metode Kontinyu, *Kimia Student Journal*, 1(2), 182-187.

Fumin, Z., Jun, W., Chaoshu, Y., and Xiaoqian, R., 2006, Catalytic Performances of Heteropoly Compounds Supported on DUSY Zeolite for Liquid Phase Esterification, *J. Braz. Chem. Soc*., 2, 140-147.

Hasanzadeh, M., Shadjou, N., Chen, S.T., and Sheikhzadeh, P., 2012, MCM-41-NH_2 as an Advanced Nanocatalyst for Electrooxidation and Determination of Amino Acids, *Catal. Commun.,* 19, 21-27.

Ifah, A.A., Trisunaryanti, W., Triyono, and Dewi, W., 2016, Synthesis of MCM-41-NH_2 Catalyst by Sonochemical Method for Transesterification of Waste Palm Oil, *Int. J. ChemTech. Res.,* 9(8), 382-387.

Iliade, P., Miletto, I., Colucia, S. and Berlier, G., 2012, Functionalization of Mesoporous MCM-41 with Aminopropyl Groups by Co-Condensation and Grafting: A Physico-chemical Characterization, *Res. Chem. Intermed*., 38, 785-794

Jiang, T., Lu, L., Yang, X., Zhao, Q., Tao, T., Yin, H. and Chen, K., 2008, Synthesis and Characterization of Mesoporous Molecular Sieve Nanoparticles, *J. Porous Mater.*, 15, 67-73.

Karimah, R., 2012, Batako Lumpur Lapindo sebagai Alternatif Material Pasangan Dinding, *Media Teknik Sipil*, 10(1), 41-48.

Kresge, C.T., Leonowicz, M.E., Roth, W.J., Vartuli, J.C. and Beck, J.S., 1992, Ordered Mesoporous Molecular Sieves Synthesized by a Liquid-crystal Template Mechanism, *Nature*, 359, 710-712.

Leung D.Y.C., and Guo Y., 2006, Transesterification of Neat and Used Frying Oil : Optimization for Biodiesel Production, *J. Fuel Process Technol.*, 87, 883– 90.

Mello, M.R., Phanon, D., Silveira, G.Q., Llewellyn, P.L. and Ronconi, C.M., 2011, Amine-modified MCM-41 Mesoporous Silica for Carbon Dioxide Capture, *Microporous Mesoporous Mater*, 143, 174-179.

Mendow, N.S., Veizaga, B.S. and Sanchez, C.A., 2011, Biodisel Production by Two-Stage Transesterification with Etanol, *Bioresource Technology,* 102: 10407–10413.

Meynen, V., Cool, P., and Vansant, E.F., 2009, Veryfied Syntheses of Mesoporous Material, *Micropor Mat.*, 125, 170-223.

Nale, D.B., Rana, S., Parida, K., and Bhanage, B.M., 2014, Amine Functionalized MCM-41 as A Green, Efficient, and Heterogeneous Catalyst for The Regioselective Synthesis of 5-aryl-2-oxazolidinones, from CO_2 and Aziridines, *Appl Catas A: Gen.*, 469, 340–349.

Olutoye, M.A., Wong, S.W., Chin, L.H., Amani, H., Asif, M., Hameed, B.H., 2016, Synthesis of Fatty Acid Methyl Esters Via The Transesterification of Waste Cooking Oil by Methanol With A Barium-Modified Montmorillonite K10 Catalyst, *Renewable Energy*, 86, 392-398.

Ortiz, H.I.M., Mercado, Y.P., Silva, J.A.M., Maldonado, Y.O., Castruita, G. and Cerda, L.A.G., 2014, Functionalization with Amine-containing Organosilane of

Mesoporous Silica MCM-41 and MCM-48 Obtained at Room Temperature, *Ceram. Int.*, 40, 9701-9707.

Parida, K.M., and Rath, D., 2007, Structural Properties and Catalytic Oxidation of Benzena to Phenol over CuO-impregnated Mesoporous Silica, *App. Catal*., 321, 101-108.

Payawan Jr, L.M., Damasco, J.A. and Piecco, K.W.E.S., 2010, Transesterification of Oil Extract from Locally-Cultivated Jatropha Curcas Using a Heterogeneous Base Catalyst and Determination of Its Properties as a Viable Biodiesel, *Philipp. J. Sci.,* 139(1), 105-116.

Pinto, A.C., Guaerieiro, L.L.N., Rezende, M.J.C. Ribeiro, N.M., Torres, E.A., Lopes, W.A., Pereira, P.A., and Andrade, J.H., 2005, Biodiesel: An Overview, *J.Braz. Chem. Soc.,* 16, 6B, 1313-1330.

Putra, A.N.H.E., Tjahjanto, R.T. dan Khunur, M.M., 2013, Optimasi Ekstraksi Silika dan Alumina dari Lumpur Sidoarjo, *Kimia Student Journal*, 2, 365-371.

Qin, Q., Ma, J., and Liu, K., 2007, Adsorption of Nitrobenzene from Aqueous Solution by MCM-41, *J. Coll. Int. Sci.*, 315, 80-86.

Ramya, G., Sudhakar, R., Joice, J.A.I., Ramakrishnan, R. and Sivakumar, T., 2012, Liquid Hydrocarbon Fuels from Jatropha Oil Through Catalytic Cracking Technology Using AlMCM-41/ZSM-5 Composite Catalysts, *Appl. Catal. A-Gen.*, 434, 170–178.

Sancho, C.G, Tost, R.M., Robles, J.M.R., Gonzalez, J.S., Lopez, A.J. and Torres, P.M., 2011, Niobium-containing MCM-41 Silica Catalysts for Biodiesel Production, *Appl. Catal. B-Environ.*, 109, 161-167.

Suyanta and Kuncaka, A., 2011, Utilization of Rice Husk as Raw Material in Synthesis of Mesoporous Silicates MCM-41, *Indo. J. Chem.,* 11(3), 279-284.

Triwulan, Ekaputri, J.J., dan Adiningtyas, T., 2007, Analisa Sifat Mekanik Beton Geopolimer Berbahan Dasar Fly Ash dan Lumpur Porong Kering Sebagai Pengisi, *Jurnal Teknologi dan Rekayasa Sipil Torsi*, 27(3), 33-45.

Triyono, T., Khoiri, H.M., Trisunaryanti, W., and Dewi, K., 2015, Synthesis of NH_2/MCM-41-Catalyst using Silica of Sidoarjo Mud and Their Characterization For Palm Oil Transesterification, *IOSR-JAC*., 8(8), 50-56.

Triyono, T., Trisunaryanti, W., and Sudiono, S., 2010, Compensation Effect in Heterogeneous Catalysis: Correlation between Observed PreExponential Factor (Aobs) and Observed Activation Energies (Eobs) of Isoamilalcohol Hydrogenolysis on Platinum Catalysts, *J. Mater. Sci. Eng., 4*(1), 57-63.

Wang, H., Liang, L., Zhang, W., and Han, J., 2012, Convenient Solvent-Free Synthesis and Characteristic of Acid-Base Bifunctionalized MCM-41 Mesoporous Silica, *J. Porous. Mater.,* 19, 889-895.

Wu, Y., Jin, Y., Cao, J., Yiliham, P., Wen, Y. and Zhou, J., 2013, Optimizing Adsorption od Arsenic(III) by NH_2-MCM-41 Using Response Surface Methodology, *J. Ind. Eng. Chem.,* 1, 1-9.

Zhang, Y., Dube, M., McLean, D., and Kates, M., 2003, Biodiesel Production from Waste Cooking Oil: Economic Assessment and Sensivity Analysis, *Bioresour. Technol.,* 90, 229-240.