

## DAFTAR PUSTAKA

- Aboul-Gheit, A.K., Gad, F.K., Abdel-Aleem, G.M., El-Desouki, D.S., Hamid, S.M.A., Ghoneim, S.A., and Ibrahim, A.H., 2014, Pt, Re and Pt-Re Incorporation in Sulfated Zirconia as Catalysts for Pentane Isomerization, *Egypt. J. Pet.*, 23, 303-314.
- Ali, M.F., El Ali B.M., and Speight, J.G., 2005, *Handbook of Industrial Chemistry*, McGraw-Hill, New York.
- Arnaldo, C.F.J., and Santos, A.C.B., 2006, Cumene Hydrocracking and Thiophene HDS on Niobia-Supported Ni, Mo and Ni-Mo Catalysts, *Catal. Today*, 118, 402-409.
- Bezergianni, S., Dimitriadis, A., Kalogianni, A., and Knudsen, K.G., 2011, Toward Hidrotreating of Waste Cooking Oil for Biodiesel Production, Effect of Pressure, H<sub>2</sub>/Oil Ratio and Liquid Hourly Space Velocity, *Ind. Eng. Chem. Res.*, 50, 3874-3879.
- Burda, C., Chen, X., Narayanan, R., and El-Sayed, M.A., 2005, Chemistry and Properties of Nanocrystals of Different Shapes, *Chem. Rev.*, 105(4), 1025-1102.
- Busto, M., Vera, J.M., and Grau, 2011, Optimal process condition for the isomerization–cracking of long chain n-paraffins to high octane isomerizate gasoline over Pt/SO<sub>4</sub><sup>2-</sup>ZrO<sub>2</sub> catalysis, *Fuel Process. Techno.*, 92, 1675-1684.
- Charusiri, W., and Vitidsant, T., 2005, Kinetic Study of Used Vegetable Oil to Liquid Fuels Over Sulfated Zirconia, *Energy Fuels*, 33, 1783–1789.
- Choudhary, N., and Saraf, D.N., 1975, Hydrocracking: A Review, *Ind. Eng. Chem. Prod. Res. Dev.*, 14, 74– 83.
- Esmailifar, A., Rowshanzamir, S., and Behbahani, A., 2014, Hydrothermal Synthesis of Nanosize Zirkonia Using Commercial Zirconia Powder: Process Optimation Through Response Surface Methodology, *Iran. J. Hydrog. Fuel. Cell*, 3, 163-173.
- Fottinger, K., Halwax, E., and Vinek, E., 2006, Deactivation and Regeneration of Pt Containing Sulfated Zirconia and Sulfated Zirconia, *Appl. Catal. Gen.*, 301, 115-122.
- Garcia, C.M., Teixeira, S., Marciniuk, S.L., and Schuchardt, U., 2008, Transesterification of Soybean Oil Catalyzed by Sulfated Zirconia, *Bioresour. Technol.*, 99, 6608–6613.
- Gurushantha, K., Anantharaju, K.S., Nagabhushana, H., Sharmac, S.C., Vidyad, Y.S., Shivakumarae, C., Nagaswarupaa, H.P., Prashantha, S.C., and Anilkumar, M.R., 2014, Facile Green Fabrication of Iron-Doped Cubic ZrO<sub>2</sub> Nanoparticles by *Phyllanthus acidus*: Structural, Photocatalytic and Photoluminescent Properties, *J. Mol. Catal. A: Chem.*, 397, 36-47.
- Hanafi, S.A., Elmelawy, M.S., El-Syed, H.A., and Shalaby, N.H., 2015, Hydrocracking of Waste Cooking Oil as Renewable Fuel on NiW/SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> Catalyst, *J. Adv. Catal. Sci. Techno.*, 2(1), 27-37.

- Hasanudin, Wijaya, K., Desneli., dan Sulaiman, W., 2006, Densitas Produk Cracking Oil Sludge dengan Katalis Ni-Monmorilonit terpilar Al<sub>2</sub>O<sub>3</sub>, *Prosiding Seminar Nasional Kimia*, 18 November 2006, Yogyakarta.
- Hasanudin, Wijaya, K., Rachmad, A., dan Trisunaryanti, W., 2008, Hidrorengkah Crude Oil Batubara dengan Katalis Ni-Mo/Monmorilonit Terpilar TiO<sub>2</sub>, *Jurnal Penelitian Sains*, 11(2), 481-487.
- Hasanudin, Said, M., Faizal, M., Dahlan, M.H., and Wijaya, K., 2012, Hydrocracking of Oil Residue from Palm Oil Mill Effluent to Biofuel, *Sustain. Environ. Res.*, 22(6), 395-394.
- Hauli, L., Wijaya, K., and Armunanto, R., 2018, Preparation and Characterization of Sulfated Zirconia from a Commercial Zirconia Nanopowder, *Orient. J. Chem.*, 34(3), 1559-1564.
- Heshmatpour, F., and Aghakhanpour, R.B., 2012, Synthesis and Characterization of Super Pure Tetragonal Nanocrystalline Sulfated Zirconia Powder by a Non-alkoxide Sol-Gel Route, *Adv. Powder Technol.*, 23, 80-87.
- Jiang, Y., Li, X., Qin, Z., and Ji, H., 2016, Preparation of Ni/bentonite Catalyst and Its Applications in the Catalytic Hydrogenation of Nitrobenzene to Aniline, *Chin. J. Chem. Eng.*, 24, 1195-2000.
- Jujarama, Wijaya, K., Shidiq, M., Fahrurrozi, M., and Suheryanto, 2014, Synthesis of Biogasoline from Used Palm Cooking Oil Through Catalytic Hydrocracking by Using Cr-Activated Natural Zeolite as Catalyst, *Asian J. Chem.*, 26(16), 5033-5038.
- Kadarwati, S., Rahmawati, F., Rahayu, P.E., Wahyuni, S., and Supardi, K.I., 2013, Kinetics and Mechanism of Ni/Zeolite-Catalyzed Hydrocracking of Palm Oil Into Biofuel, *Indones. J. Chem*, 13(1), 77-85.
- Kurnia, J.K., Jangam, S.V., Akhtar, S., Sasmito, A.P., and Mujumdar, A.S., 2016, Advance in Biofuel Production from Oil Palm and Palm Oil Processing Waste: A Review, *Biofuel. Res. J.*, 9, 332-346.
- Li, T., Cheng, J., Huang, R., Zhou, J., and Cen, K., 2015, Conversion of Waste Cooking Oil to Jet Biofuel with Nickel-Based Mesoporous Zeolite Y Catalyst, *Bioresour. Technol.*, 197, 285-294.
- Liu, T., Liu, Y., Wu, S., Xue, J., Wu, Y., Li, Y., and Kang, X., 2018, Restaurants Behaviour, Awareness, and Willingness to Submit Waste Cooking Oil for Biofuel Production in Beijing, *J. Cleaner. Prod.*, 204, 636-642.
- Meller, E., Gutkin, V., Aizenshtat, Z., and Sasson, Y., 2016, Catalytic Hydrocracking-Hydrogenation of Castor Oil Fatty Acid Methyl Esters Over Nickel Substituted Polyoxometalate Catalyst, *J. Catal.*, 1, 6396-6405.
- Mohammad, M., Hari, T.K., Yakob, Z., Sharma, Y.C., and Sopian, K., 2013, Overview on the Production of Paraffin Based-Biofuels via Catalytic Hydrodeoxygenation, *Renew. Sust. Energ. Rev.*, 22, 121-132.
- Mohanty, S., Kunzru, D., and Saraf, D.N., 1999, Hydrocracking: a Review, *Fuel*, 69(12), 1467-1473.
- Nanda, S., Rana, R., Hunter, H.N., Fang, Z., Dalai, A.J., and Kozinski, J.A., 2019, Hydrothermal Catalytic Processing of Waste Cooking Oil for Hydrogen-rich Syngas Production, *Chem. Eng. Sci.*, 195, 935-945.

- Nourredine, A., 2010, Sulfate and Hydroxide Supported on Zirconium Oxide Catalysts for Biodiesel Production, *Thesis*, Virginia Polytechnic Institute and State University, Virginia.
- Ong, Y.K., and Bhatia, S., 2010, The Current Status and Perspectives of Biofuel Production via Catalytic Cracking of Edible and Non-Edible Oils, *Energy*, 35(1), 111-119.
- Reddy, B.M., and Patil, M.K., 2009, Organic Synthesis and Transformations Catalyzed by Sulfated Zirconia, *Chem. Rev.*, 109(6), 2185-2208.
- Rohmah, E.N., Rochmat, A., and Sumbogo, S.D., 2012, Bio-gasoline from Catalytic Hydrocracking Reaction of Waste Cooking Oil Using Bayah Natural Zeolite, *Int. J. Environ. Bioenergy*, 3(3), 201-209.
- Said, A.E.A., El-Wahab, M.M.A., and El-Aal, M.A., 2014, The Catalytic Performance of Sulfated Zirconia in The Dehydration of Methanol to Dimethyl Ether, *J. Mol. Catal. Chem.*, 394, 40-47.
- Said, A.E.A., and El-Aal, M.A., 2018, Effect of Different Metal Sulfate Precursors on Structural and Catalytic Performance of Zirconia in Dehydration of Methanol to Dimethyl Ether, *J. Fuel. Chem. Technol.*, 46(1), 67-74.
- Sang, O.Y., 2003, Biofuel Production from Catalytic Cracking of Palm Oil, *Energ. Source.*, 25(9), 859-869.
- Saravanan, K., Tyagi, B. and Bajaj, H.C., 2012, Esterification of Caprylic Acid with Alcohol Over Nano-crystalline Sulfated Zirconia, *J. Sol-Gel Sci. Technol.*, 62, 13-17.
- Scherzer, J., and Gruia, A.J., 1996, *Hydrocracking Science and Technology*, CRC Press, New York.
- Sidjabat, J., 2004, Kandungan Minyak Goreng, *Lembaran Lemigas*, 8(1), 39-50.
- Sie, S.T., 1993, Acid Catalyzed Cracking of Paraffinic Hydrocarbons. 2. Evidence for the Protonated Cyclopropane Mechanism from Catalytic Cracking Experiment, *Ind. Eng. Chem. Rev.*, 32, 397-402.
- Siegbahn, P.E.M., Blomberg, M.R.A., and Bauschlicher, C.W., 1984, The Dissociation of H<sub>2</sub> on The Ni (100) Surface, *J. Chem. Phys.*, 81, 2103.
- Sing, K.S.W., Everett, D.H., Haul, R.A.W., Moscou, L., Pierotti, R.A., Rouquerol, J., and Sienieniewska, T., 1985, Reporting Physisorption Data for Gas/Solid System with Special Reference to the Determination of Surface Area and Porosity, *Pure Appl. Chem.*, 4(57), 603-619.
- Spielbauer, D., Mekhemer, G.A.H., and Knozinger, H., 1996, Acidity of Sulfated Zirconia as Studied by FTIR Spectroscopy of Adsorbed CO and NH<sub>3</sub> as Probe Molecules, *Catal. Lett.*, 40, 71-79.
- Suseno, A., Wijaya, K., Trisunaryanti, W., and Roto, 2018, Synthesis and Characterization of Ni-Cu Doped Zirconia-Pillared Bentonite, *Orient. J. Chem.*, 34(3), 1-5.
- Taufiqurrahmi, N., Mohamed, A.R., and Bhatia, S., 2011, Nanocrystallin Zeolite Beta in Catalytic Cracking of Used Palm Oil, *Chem. Eng. J.*, 163(3), 413-421.
- Twaiq, F.A., Zabidi, N.A.M., and Bhatia, S., 1999, Catalytic Conversion of Palm Oil to Hydrocarbons: Performance of Various Zeolite Catalysts, *Ind. Eng. Chem. Res.*, 38 (9), 3230-3237.

- Vassen, R., Cao, X.Q., Tietz, F., Basu, D., and Stover, 2000, Zirconates as New Materials for Thermal Barrier Coating, *J. Am. Ceram. Soc.*, 83(8), 2023-2028.
- Weitkamp, J., 2012, Catalytic Hydrocracking-Mechanisms and Versatility of the Process, *ChemCatChem.*, 4, 292–306.
- Wijaya, K., Baobalaguana, G., Trisunaryanti, W., and Syoufian, A., 2013, Hydrocracking of Palm Oil into Biogasoline Catalyst by Cr/Natural Zeolite, *Asian J. Chem.*, 25(16), 8981-8986.
- Wijaya, K., Syoufian., and Ariantika, S.D., 2014, Hydrocracking of Used Cooking Oil into Biofuel Catalyzed by Nickel-Bentonite, *Asian J. Chem.*, 26(11), 3785-3789.
- Yadav, G.D., and Nair, J.J., 1999, Sulfated Zirconia and Its Modified Versions as Promising Catalysts for Industrial Processes, *Microporous Mesoporous Mater.*, 33, 1-48.