

## DAFTAR PUSTAKA

- Ackland, J., White, J., Waibel, R. T., & Londerville, S. B. (2013). Fuels. In *The Coen & Hamworthy Combustion Handbook* (pp. 110–133). CRC Press. <https://doi.org/10.1201/b13967-12>
- Alptekin, E., & Canakci, M. (2009). Characterization of the key fuel properties of methyl ester-diesel fuel blends. *Fuel*, 88(1), 75–80. <https://doi.org/10.1016/j.fuel.2008.05.023>
- Amin, A. K., Wijaya, K., & Trisunaryanti, W. (2020). Physico-chemical properties of nickel promoted sulfated zirconia powder prepared using different procedures. *Asian Journal of Chemistry*, 32(3), 555–560. <https://doi.org/10.14233/ajchem.2020.21991>
- Arenas-Alatorre, J., Avalos-Borja, M., & Díaz, G. (2002). Microstructural characterization of bimetallic Ni-Pt catalysts supported on SiO<sub>2</sub>. *Applied Surface Science*, 189(1–2), 7–17. [https://doi.org/10.1016/S0169-4332\(01\)00540-2](https://doi.org/10.1016/S0169-4332(01)00540-2)
- Augustine, R. L. (1995). *Heterogeneous Catalysis for the Synthetic Chemist*. CRC Press. <https://doi.org/10.1201/9781003067122>
- Ayundari, D. P. N., & Sutjahjo, D. H. (2018). Rancang Bangun Alat Uji Pour Point untuk Mengukur Titik Tuang Bahan Bakar. *Jurnal Rekayasa Mesin*, 5(1). <https://ejournal.unesa.ac.id/index.php/jurnal-rekayasa-mesin/article/view/25843>
- Barrabino, A. (2011). Synthesis of mesoporous silica particles with control of both pore diameter and particle size [Chalmers University of Technology]. In *Thesis*. <http://publications.lib.chalmers.se/records/fulltext/142464.pdf>
- Biantoro, E. W. (2018). Analisa Karakteristik Bahan Bakar Minyak Dari Ban Dalam Bekas dan Plastik Jenis LDPE (Low Density Polyethylene). *Prosiding SEMNAS INOTEK (Seminar Nasional Inovasi Teknologi)*, 2(1), 281–286.
- Bokov, D., Turki Jalil, A., Chupradit, S., Suksatan, W., Javed Ansari, M., Shewael, I. H., Valiev, G. H., & Kianfar, E. (2021). Nanomaterial by Sol-Gel Method: Synthesis and Application. In *Advances in Materials Science and Engineering*

- (Vol. 2021). Hindawi Limited. <https://doi.org/10.1155/2021/5102014>
- Chen, J., Liu, R., Gao, H., Chen, L., & Ye, D. (2014). Amine-functionalized metal-organic frameworks for the transesterification of triglycerides. *Journal of Materials Chemistry A*, 2(20), 7205–7213. <https://doi.org/10.1039/c4ta00253a>
- Chen, Y. K., Hsieh, C. H., & Wang, W. C. (2020). The production of renewable aviation fuel from waste cooking oil. Part II: Catalytic hydrocracking/isomerization of hydro-processed alkanes into jet fuel range products. *Renewable Energy*, 157, 731–740. <https://doi.org/10.1016/j.renene.2020.04.154>
- Cheng, L., Cai, J., & Ke, Y. (2019). Synthesis of Large-Pore Silica Microspheres Using Dodecylamine as a Catalyst, Template and Porogen Agent. *Journal of Inorganic and Organometallic Polymers and Materials*, 29(4), 1417–1421. <https://doi.org/10.1007/s10904-019-01086-3>
- Choi, I. H., Lee, J. S., Kim, C. U., Kim, T. W., Lee, K. Y., & Hwang, K. R. (2018). Production of bio-jet fuel range alkanes from catalytic deoxygenation of Jatropha fatty acids on a WO<sub>x</sub>/Pt/TiO<sub>2</sub> catalyst. *Fuel*, 215, 675–685. <https://doi.org/10.1016/j.fuel.2017.11.094>
- Coasne, B. (2016). Multiscale adsorption and transport in hierarchical porous materials. In *New Journal of Chemistry* (Vol. 40, Issue 5, pp. 4078–4094). Royal Society of Chemistry. <https://doi.org/10.1039/c5nj03194j>
- Crespo, I., Palos, R., Trueba, D., Bilbao, J., Arandes, J. M., & Gutiérrez, A. (2023). Intensifying gasoline production in the hydrocracking of pre-hydrotreated light cycle oil by means of Pt and Pd supported on a spent FCC catalyst. *Fuel*, 334. <https://doi.org/10.1016/j.fuel.2022.126579>
- Deka, J. R., Vetrivel, S., Wu, H. Y., Pan, Y. C., Ting, C. C., Tsai, Y. L., & Kao, H. M. (2014). Rapid sonochemical synthesis of MCM-41 type benzene-bridged periodic mesoporous organosilicas. *Ultrasonics Sonochemistry*, 21(1), 387–394. <https://doi.org/10.1016/j.ultsonch.2013.06.014>
- Dewi, T. K., Mediana, M., & Hidayati, N. (2014). Pengaruh Suhu pada Hydrocracking Oli Bekas Menggunakan Katalis Cr/ZAA. *Teknik Kimia*, 20(2). <https://api.semanticscholar.org/CorpusID:109318491>

- Feinle, A., Elsaesser, M. S., & Hüsing, N. (2016). Sol-gel synthesis of monolithic materials with hierarchical porosity. In *Chemical Society Reviews* (Vol. 45, Issue 12, pp. 3377–3399). Royal Society of Chemistry. <https://doi.org/10.1039/c5cs00710k>
- Hanaoka, T., Miyazawa, T., Shimura, K., & Hirata, S. (2015). Jet fuel synthesis in hydrocracking of Fischer-Tropsch product over Pt-Loaded zeolite catalysts prepared using microemulsions. *Fuel Processing Technology*, 129, 139–146. <https://doi.org/10.1016/j.fuproc.2014.09.011>
- Heracleous, E., & Lemonidou, A. A. (2003). *Ethylene production via oxidative dehydrogenation in the presence of highly active nickel-based catalysts*. 293(2002), 2003.
- Huang, F., Wang, R., Yang, C., Driss, H., Chu, W., & Zhang, H. (2016). Catalytic performances of Ni/mesoporous SiO<sub>2</sub> catalysts for dry reforming of methane to hydrogen. *Journal of Energy Chemistry*, 25(4), 709–719. <https://doi.org/10.1016/j.jechem.2016.03.004>
- Imai, H., Abe, M., Terasaka, K., Suzuki, T., Li, X., & Yokoi, T. (2018). Hydroconversion of methyl laurate over silica-supported Ni–Mo catalysts with different Ni sizes. *Fuel Processing Technology*, 180(July), 166–172. <https://doi.org/10.1016/j.fuproc.2018.08.014>
- Irzon, R. (2018). Komposisi Kimia Pasir Pantai di Selatan Kulon Progo dan Implikasi terhadap Provenance. *Jurnal Geologi Dan Sumberdaya Mineral*, 19(1), 31–45. <https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/267>
- Jang, M. S., Phan, T. N., Chung, I. S., Lee, I. G., Park, Y. K., & Ko, C. H. (2018). Metallic nickel supported on mesoporous silica as catalyst for hydrodeoxygenation: effect of pore size and structure. *Research on Chemical Intermediates*, 44(6), 3723–3735. <https://doi.org/10.1007/s11164-018-3377-1>
- Jaroszewska, K., Masalska, A., Czyz, D., & Grzechowiak, J. (2017). Activity of shaped Pt/ALSBA-15 catalysts in n-hexadecane hydroisomerization. *Fuel Processing Technology*, 167, 1–10. <https://doi.org/10.1016/j.fuproc.2017.06.012>

- Kadam, R. G., Rathi, A. K., Cepe, K., Zboril, R., Varma, R. S., Gawande, M. B., & Jayaram, R. V. (2017). Hexagonal Mesoporous Silica-Supported Copper Oxide (CuO/HMS) Catalyst: Synthesis of Primary Amides from Aldehydes in Aqueous Medium. *ChemPlusChem*, 82(3), 467–473. <https://doi.org/10.1002/cplu.201600611>
- Kamaruzaman, M. F., Taufiq-Yap, Y. H., & Derawi, D. (2020). Green diesel production from palm fatty acid distillate over SBA-15-supported nickel, cobalt, and nickel/cobalt catalysts. *Biomass and Bioenergy*, 134. <https://doi.org/10.1016/j.biombioe.2020.105476>
- Kementrian Kelautan dan Perikanan. (2022). *Kelautan dan Perikanan dalam Angka Tahun 2022*.
- Kusumastuti, H., Trisunaryanti, W., Izul Falah, I., & Fajar Marsuki, M. (2018). Synthesis of Mesoporous Silica-Alumina from Lapindo Mud as a Support of Ni and Mo Metals Catalysts for Hydrocracking of Pyrolyzed  $\alpha$ -Cellulose. *Rasayan Journal of Chemistry*, 11(2), 522–530. <https://doi.org/10.31788/rjc.2018.1122061>
- Ladd, M. F. C., & Palmer, R. A. (1985). *Structure Determination by X-Ray Crystallography*. Springer US. <https://doi.org/10.1007/978-1-4615-7939-7>
- Lam, S. S., Liew, R. K., Jusoh, A., Chong, C. T., Ani, F. N., & Chase, H. A. (2016). Progress in waste oil to sustainable energy, with emphasis on pyrolysis techniques. *Renewable and Sustainable Energy Reviews*, 53, 741–753. <https://doi.org/10.1016/j.rser.2015.09.005>
- Li, L., Cheruvathur, A., Zuo, S., An, P., Hou, F., Xu, J., Li, G., & Liu, G. (2021). Surface structure modulating of Ni-Pt bimetallic catalysts boosts n-dodecane steam reforming. *Applied Catalysis B: Environmental*, 299(August), 120670. <https://doi.org/10.1016/j.apcatb.2021.120670>
- Lin, S., Shi, L., Ribeiro Carrott, M. M. L., Carrott, P. J. M., Rocha, J., Li, M. R., & Zou, X. D. (2011). Direct synthesis without addition of acid of Al-SBA-15 with controllable porosity and high hydrothermal stability. *Microporous and Mesoporous Materials*, 142(2–3), 526–534. <https://doi.org/10.1016/j.micromeso.2010.12.043>

- Miyao, T., Tanaka, J., Shen, W., Hayashi, K., Higashiyama, K., & Watanabe, M. (2015). Catalytic activity and durability of a mesoporous silica-coated Ni-alumina-based catalyst for selective CO methanation. *Catalysis Today*, 251, 81–87. <https://doi.org/10.1016/j.cattod.2014.10.018>
- Molefe, M., Nkazi, D., & Mukaya, H. E. (2019). Method Selection for Biojet and Biogasoline Fuel Production from Castor Oil: A Review. *Energy and Fuels*, 33(7), 5918–5932. <https://doi.org/10.1021/acs.energyfuels.9b00384>
- Moongraksathum, B., & Chen, Y. W. (2019). Synthesis and size control of uniform, spherically shaped hexagonal mesoporous silica. *Journal of Porous Materials*, 26(1), 51–58. <https://doi.org/10.1007/s10934-018-0609-0>
- Morsi, R. E., & Mohamed, R. S. (2018). Nanostructured mesoporous silica: Influence of the preparation conditions on the physical-surface properties for efficient organic dye uptake. *Royal Society Open Science*, 5(3). <https://doi.org/10.1098/rsos.172021>
- Nita, I., Geacai, S., & Iulian, O. (2011). Measurements and correlations of physico-chemical properties to composition of pseudo-binary mixtures with biodiesel. *Renewable Energy*, 36(12), 3417–3423. <https://doi.org/10.1016/j.renene.2011.05.020>
- Nooney, R. I., Thirunavukkarasu, D., Yimei, C., Josephs, R., & Ostafin, A. E. (2002). Synthesis of nanoscale mesoporous silica spheres with controlled particle size. *Chemistry of Materials*, 14(11), 4721–4728. <https://doi.org/10.1021/cm0204371>
- Nuntang, S., Poompradub, S., Butnark, S., Yokoi, T., Tatsumi, T., & Ngamcharussrivichai, C. (2014). Novel mesoporous composites based on natural rubber and hexagonal mesoporous silica: Synthesis and characterization. *Materials Chemistry and Physics*, 143(3), 1199–1208. <https://doi.org/10.1016/j.matchemphys.2013.11.022>
- Nuntang, S., Yousatit, S., Yokoi, T., & Ngamcharussrivichai, C. (2019). Tunable mesoporosity and hydrophobicity of natural rubber/hexagonal mesoporous silica nanocomposites. *Microporous and Mesoporous Materials*, 275, 235–243. <https://doi.org/10.1016/j.micromeso.2018.09.004>

- Nuryanti, R., Sari, D. K., & Sari, I. M. P. (2023). Analisa Kualitas Bahan Bakar Jenis Pertalite Di Spbu Dengan Pertalite Di Pertamina Berdasarkan Parameter Uji Specific Gravity, Reid Vapour Pressure, Doctort Test, Distilasi, Copper Strip Test, Octane Number. *Journal of Innovation Research and Knowledge*, 3(4), 913–920. <https://doi.org/10.53625/jirk.v3i4.6552>
- Pauly, T. R., Liu, Y., Pinnavaia, T. J., Billinge, S. J. L., & Rieker, T. P. (1999). Textural mesoporosity and the catalytic activity of mesoporous molecular sieves with wormhole framework structures. *Journal of the American Chemical Society*, 121(38), 8835–8842. <https://doi.org/10.1021/ja991400t>
- Pratas, M. J., Freitas, S. V.D., Oliveira, M. B., Monteiro, S. C., Lima, Á. S., & Coutinho, J. A. P. (2011). Biodiesel density: Experimental measurements and prediction models. *Energy and Fuels*, 25(5), 2333–2340. <https://doi.org/10.1021/ef2002124>
- Qiu, S., Zhang, Q., Lv, W., Wang, T., Zhang, Q., & Ma, L. (2017). Simply packaging Ni nanoparticles inside SBA-15 channels by co-impregnation for dry reforming of methane. *RSC Advances*, 7(39), 24551–24560. <https://doi.org/10.1039/c7ra00149e>
- Ramasamy, D. L., Khan, S., Repo, E., & Sillanpää, M. (2017). Synthesis of mesoporous and microporous amine and non-amine functionalized silica gels for the application of rare earth elements (REE) recovery from the waste water—understanding the role of pH, temperature, calcination and mechanism in Light REE and Hea. *Chemical Engineering Journal*, 322, 56–65. <https://doi.org/10.1016/j.cej.2017.03.152>
- Rodiansono, & Trisunaryanti, W. (2005). Activity Test and Regeneration of NiMo/Z Catalyst for Hydrocracking of Waste Plastic Fraction to Gasoline Fraction. *Indo. J. Chem*, 5(3), 261–268.
- Salamah, S., Trisunaryanti, W., Kartini, I., & Purwono, S. (2021). Synthesis and characterization of mesoporous silica from beach sands as silica source. *IOP Conference Series: Materials Science and Engineering*, 1053(1), 012027. <https://doi.org/10.1088/1757-899x/1053/1/012027>
- Salamah, S., Trisunaryanti, W., Kartini, I., & Purwono, S. (2022a). Hydrocracking

- of Waste Cooking Oil into Biofuel Using Mesoporous Silica from Parangtritis Beach Sand Synthesized with Sonochemistry. *Silicon*, 14(7), 3583–3590. <https://doi.org/10.1007/s12633-021-01117-0>
- Salamah, S., Trisunaryanti, W., Kartini, I., & Purwono, S. (2022b). Synthesis of Mesoporous Silica from Beach Sand by Sol-Gel Method as a Ni Supported Catalyst for Hydrocracking of Waste Cooking Oil. *Indonesian Journal of Chemistry*, 22(3), 726–741. <https://doi.org/10.22146/ijc.70415>
- Salamah, S., Trisunaryanti, W., Kartini, I., & Purwono, S. (2023). *Use Of Pt/Mesoporous Silica from Silica Beach Sand for Hydrocracking of Castor Oil and Reusability* (Vol. 2). Atlantis Press International BV. [https://doi.org/10.2991/978-94-6463-216-3\\_14](https://doi.org/10.2991/978-94-6463-216-3_14)
- Satterfield, C. N. (1996). *Heterogeneous Catalysis in Industrial Practice* (2nd ed.). Krieger.
- Sheng, L., Zhang, Y., Tang, F., & Liu, S. (2018). Mesoporous/microporous silica materials: Preparation from natural sands and highly efficient fixed-bed adsorption of methylene blue in wastewater. *Microporous and Mesoporous Materials*, 257, 9–18. <https://doi.org/10.1016/j.micromeso.2017.08.023>
- Sohrabnezhad, S., Jafarzadeh, A., & Pourahmad, A. (2018). Synthesis and characterization of MCM-41 ropes. *Materials Letters*, 212, 16–19. <https://doi.org/10.1016/j.matlet.2017.10.059>
- Sotomayor, F. J., Cychosz, K. A., & Thommes, M. (2018). Characterization of Micro/Mesoporous Materials by Physisorption: Concepts and Case Studies. In *Acc. Mater. Surf. Res* (Vol. 3, Issue 2).
- Sriningsih, W., Saerodji, M. G., Trisunaryanti, W., Triyono, Armunanto, R., & Falah, I. I. (2014). Fuel Production from LDPE Plastic Waste over Natural Zeolite Supported Ni, Ni-Mo, Co and Co-Mo Metals. *Procedia Environmental Sciences*, 20(December), 215–224. <https://doi.org/10.1016/j.proenv.2014.03.028>
- Stauffer, E., Dolan, J. A., & Newman, R. (2008). *Fire Debris Analysis*. Elsevier. <https://doi.org/10.1016/B978-0-12-663971-1.X5001-5>
- Sudhakar, P., & Pandurangan, A. (2018). Pt/Ni wet impregnated over Al

- incorporated mesoporous silicates: a highly efficient catalyst for anisole hydrodeoxygenation. *Journal of Porous Materials*, 25(3), 747–759. <https://doi.org/10.1007/s10934-017-0488-9>
- Sudhasree, S., Banu, A. S., Brindha, P., & Kurian, G. A. (2014). Synthesis of nickel nanoparticles by chemical and green route and their comparison in respect to biological effect and toxicity. *Toxicological & Environmental Chemistry*, 96(5), 743–754. <https://doi.org/10.1080/02772248.2014.923148>
- Thahir, R., Wahab, A. W., Nafie, N. La, & Raya, I. (2019). Synthesis of high surface area mesoporous silica SBA-15 by adjusting hydrothermal treatment time and the amount of polyvinyl alcohol. *Open Chemistry*, 17(1), 963–971. <https://doi.org/10.1515/chem-2019-0106>
- Trisunaryanti, W., Larasati, S., Triyono, T., Santoso, N. R., & Paramesti, C. (2020). Selective production of green hydrocarbons from the hydrotreatment of waste coconut oil over Ni- And NiMo-supported on amine-functionalized mesoporous silica. *Bulletin of Chemical Reaction Engineering and Catalysis*, 15(2), 415–431. <https://doi.org/10.9767/bcrec.15.2.7136.415-431>
- Trisunaryanti, W., & Marsuki, M. F. (2017, August 31). Synthesis of Mesoporous Silica-Alumina from Lapindo Mud Using Gelatin from Catfish Bone as a Template: Effect of Extracting Temperature on Yield and Characteristic of Gelatin as well as Mesoporous Silica-Alumina. *International Conference on Environmental Science and Technology*. <https://www.researchgate.net/publication/320054826>
- Trisunaryanti, W., Sumbogo, S. D., Mukti, R. R., Kartika, I. A., Hartati, & Triyono. (2021). Performance of low-content Pd and high-content Co, Ni supported on hierarchical activated carbon for the hydrotreatment of Calophyllum inophyllum oil (CIO). *Reaction Kinetics, Mechanisms and Catalysis*, 134(1), 259–272. <https://doi.org/10.1007/s11144-021-02060-2>
- Trisunaryanti, W., Wijaya, K., Triyono, T., Adriani, A. R., & Larasati, S. (2021). Green synthesis of hierarchical porous carbon prepared from coconut lumber sawdust as Ni-based catalyst support for hydrotreating Callophyllum inophyllum oil. *Results in Engineering*, 11.

<https://doi.org/10.1016/j.rineng.2021.100258>

- Vazquez, N. I., Gonzalez, Z., Ferrari, B., & Castro, Y. (2017). Synthesis of mesoporous silica nanoparticles by sol-gel as nanocontainer for future drug delivery applications. *Boletin de La Sociedad Espanola de Ceramica y Vidrio*, 56(3), 139–145. <https://doi.org/10.1016/j.bsecv.2017.03.002>
- Verma, D., Rana, B. S., Kumar, R., Sibi, M. G., & Sinha, A. K. (2015). Diesel and aviation kerosene with desired aromatics from hydroprocessing of jatropha oil over hydrogenation catalysts supported on hierarchical mesoporous SAPO-11. *Applied Catalysis A: General*, 490(1), 108–116. <https://doi.org/10.1016/j.apcata.2014.11.007>
- Wang, J., Zhong, Z., Zhang, B., Ding, K., Xue, Z., Deng, A., & Ruan, R. (2017). Upgraded bio-oil production via catalytic fast co-pyrolysis of waste cooking oil and tea residual. *Waste Management*, 60, 357–362. <https://doi.org/10.1016/j.wasman.2016.09.008>
- Wang, N., Yu, X., Shen, K., Chu, W., & Qian, W. (2013). Synthesis, characterization and catalytic performance of MgO-coated Ni/SBA-15 catalysts for methane dry reforming to syngas and hydrogen. *International Journal of Hydrogen Energy*, 38(23), 9718–9731. <https://doi.org/10.1016/j.ijhydene.2013.05.097>
- Wang, Q., Li, B. Z., & Li, Y. (2014). Preparation and characterization of helical carbon/silica nanofibers with lamellar mesopores on the surfaces. *Chinese Chemical Letters*, 25(2), 253–256. <https://doi.org/10.1016/j.ccllet.2013.10.028>
- Wang, X., Li, W., Zhu, G., Qiu, S., Zhao, D., & Zhong, B. (2004). Effects of ammonia/silica molar ratio on the synthesis and structure of bimodal mesopore silica xerogel. *Microporous and Mesoporous Materials*, 71(1–3), 87–97. <https://doi.org/10.1016/j.micromeso.2004.03.021>
- Wijaya, K., Ariyanti, A. D., Tahir, I., Syoufian, A., Rachmat, A., & Hasanudin. (2018). Synthesis of Cr/Al<sub>2</sub>O<sub>3</sub>-Bentonite Nanocomposite as the Hydrocracking Catalyst of Castor Oil. *Nano Hybrids and Composites*, 19, 46–54. <https://doi.org/10.4028/www.scientific.net/nhc.19.46>
- Wijaya, K., Kurniawan, M. A., Saputri, W. D., Trisunaryanti, W., Mirzan, M.,

- Hariani, P. L., & Tikoalu, A. D. (2021). Synthesis of nickel catalyst supported on ZrO<sub>2</sub>/SO<sub>4</sub> pillared bentonite and its application for conversion of coconut oil into gasoline via hydrocracking process. *Journal of Environmental Chemical Engineering*, 9(4). <https://doi.org/10.1016/j.jece.2021.105399>
- Wijaya, L. A., Nurhatika, N., & Sudarmanta, S. (2019). Uji Efektifitas Bioetanol Menggunakan Eceng Gondok (*Eichhornia crassipes*) Sebagai Bahan Bakar Campuran Bensin Terhadap Unjuk Kerja Mesin Generator. *Jurnal Sains Dan Seni ITS*, 7(2). <https://doi.org/10.12962/j23373520.v7i2.29921>
- Xia, W. S., Hou, Y. H., Chang, G., Weng, W. Z., Han, G. Bin, & Wan, H. L. (2012). Partial oxidation of methane into syngas (H<sub>2</sub> + CO) over effective high-dispersed Ni/SiO<sub>2</sub> catalysts synthesized by a sol-gel method. *International Journal of Hydrogen Energy*, 37(10), 8343–8353. <https://doi.org/10.1016/j.ijhydene.2012.02.141>
- Yang, Z., Cai, W., Chou, J., Cai, Z., Jin, W., Chen, J., Xiong, Z., Ru, X., & Xia, Q. (2019). Hydrothermal synthesis of plugged micro/mesoporous Al-SBA-15 from spent fluid catalytic cracking catalyst. *Materials Chemistry and Physics*, 222, 227–229. <https://doi.org/10.1016/j.matchemphys.2018.10.026>
- Yıldız, A., Goldfarb, J. L., & Ceylan, S. (2020). Sustainable hydrocarbon fuels via “one-pot” catalytic deoxygenation of waste cooking oil using inexpensive, unsupported metal oxide catalysts. *Fuel*, 263. <https://doi.org/10.1016/j.fuel.2019.116750>
- Zhang, G., Liu, J., Xu, Y., & Sun, Y. (2019). Ordered mesoporous Ni/Silica-carbon as an efficient and stable catalyst for CO<sub>2</sub> reforming of methane. *International Journal of Hydrogen Energy*, 44(10), 4809–4820. <https://doi.org/10.1016/j.ijhydene.2019.01.017>
- Zhang, J., Chen, T., Yao, P., Jiao, Y., Wang, J., Chen, Y., Zhu, Q., & Li, X. (2019). Catalytic Cracking of n-Decane over Monometallic and Bimetallic Pt-Ni/MoO<sub>3</sub>/La-Al<sub>2</sub>O<sub>3</sub> Catalysts: Correlations of Surface Properties and Catalytic Behaviors. *Industrial and Engineering Chemistry Research*, 58(5), 1823–1833. <https://doi.org/10.1021/acs.iecr.8b04712>
- Zhang, Z., Luo, Y., Guo, Y., Shi, W., Wang, W., Zhang, B., Zhang, R., Bao, X.,

- Wu, S., & Cui, F. (2018). Pd and Pt nanoparticles supported on the mesoporous silica molecular sieve SBA-15 with enhanced activity and stability in catalytic bromate reduction. *Chemical Engineering Journal*, 344, 114–123. <https://doi.org/10.1016/j.cej.2018.03.056>
- Zhao, J., Wang, G., Qin, L., Li, H., Chen, Y., & Liu, B. (2016). Synthesis and catalytic cracking performance of mesoporous zeolite y. *Catalysis Communications*, 73, 98–102. <https://doi.org/10.1016/j.catcom.2015.10.020>
- Zhou, H., Sun, J., Ren, B., Wang, F., Wu, X., & Bai, S. (2014). Effects of alkaline media on the controlled large mesopore size distribution of bimodal porous silicas via sol-gel methods. *Powder Technology*, 259, 46–51. <https://doi.org/10.1016/j.powtec.2014.03.060>



UNIVERSITAS  
GADJAH MADA

**Sintesis Dan Karakterisasi Silika Mesopori Dari Pasir pantai Parangtritis Sebagai Pengemban Logam Nikel dan Platina untuk Katalis Hidrorengkah Minyak Goreng Bekas menjadi Bahan Bakar**  
Siti Salamah, Prof.Dra.Wega Trisunaryanti,M.Si.,Ph.,D.

Universitas Gadjah Mada, 2024 | Diunduh dari <http://etd.repository.ugm.ac.id/>