

## DAFTAR PUSTAKA

- Abdollahi, M. R., Ravindran, V., Wester, T. J., Ravindran, G., & Thomas, D. V. (2013). Influence of pellet diameter and length on the quality of pellets and performance, nutrient utilisation and digestive tract development of broilers fed on wheat-based diets. *British Poultry Science*, 54(3), 337–345. <https://doi.org/10.1080/00071668.2013.780285>
- Abdullah, R., Astira, D., Zulfiani, U., Widyanto, A. R., Rahmawati, Z., Gunawan, T., Kusumawati, Y., Othman, M. H. D., & Fansuri, H. (2024). Ultrafiltration membranes for dye wastewater treatment: Utilizing cellulose acetate and microcrystalline cellulose fillers from *Ceiba Pentandra*. *Communications in Science and Technology*, 9(1), 7–15. <https://doi.org/10.21924/cst.9.1.2024.1345>
- Acda, M. N., & Devera, E. E. (2014). PHYSICO-CHEMICAL PROPERTIES OF WOOD PELLETS FROM FOREST RESIDUES. *Source: Journal of Tropical Forest Science*, 26(4), 589–595.
- Acharya, B., Sule, I., & Dutta, A. (2012). A review on advances of torrefaction technologies for biomass processing. *Biomass Conversion and Biorefinery*, 2(4), 349–369. <https://doi.org/10.1007/s13399-012-0058-y>
- Ahiduzzaman, M., & Sadrul Islam, A. K. M. (2015). Energy yield of torrefied rice husk at atmospheric condition. *Procedia Engineering*, 105, 719–724. <https://doi.org/10.1016/j.proeng.2015.05.062>
- American Society for Testing and Materials. (2001). *Standard Test Method for Single Pellet Crush Strength of Formed Catalyst Shapes*. ASTM D4179-01. ASTM International. West Conshohocken, PA, USA.
- American Society for Testing and Materials. (2006). *Standard Test Method for Chemical Analysis of Wood Charcoal*. ASTM D1762-84. ASTM International. West Conshohocken, PA, USA.
- American Society for Testing and Materials. (2010). *Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter*. ASTM D5865-10. ASTM International. West Conshohocken, PA, USA.
- Anderson-Sprecher, R., & Anderson-sprecher, R. (1994). Regression Diagnostics: Identifying Influential Data and Sources of Collinearity. In *The American Statistician* (Vol. 48, Issue 2). John Wiley. Nagaraja, H. N.
- Antwi-Boasiako, C., & Acheampong, B. B. (2015). *Strength properties and calorific values of sawdust-briquettes as wood-residue energy generation source from tropical hardwoods of different densities*. <https://doi.org/10.1016/j.biombioe.2015.12.006>
- Antwi-Boasiako, C., & Acheampong, B. B. (2016). Strength properties and calorific values of sawdust-briquettes as wood-residue energy generation source from tropical hardwoods of different densities. *Biomass and Bioenergy*, 85, 144–152. <https://doi.org/10.1016/j.biombioe.2015.12.006>
- Antwi-Boasiako, C., & Appiah, J. K. (2017). Glue-line durability of organo-chemical/urea formaldehyde resin joints of *Ceiba pentandra* (L.) Gaertn. plywood. *Journal of the Indian Academy of Wood Science*, 14(1), 49–59. <https://doi.org/10.1007/s13196-017-0187-9>

## DAFTAR PUSTAKA (Lanjutan)

- Arteaga-Pérez, L. E., Grandón, H., Flores, M., Segura, C., & Kelley, S. S. (2017). Steam torrefaction of *Eucalyptus globulus* for producing black pellets: A pilot-scale experience. *Bioresource Technology*, 238, 194–204. <https://doi.org/10.1016/j.biortech.2017.04.037>
- Artemio, C. P., Maginot, N. H., Serafin, C. U., Rahim, F. P., Guadalupe, R. Q. J., & Fermín, C. M. (2018). Physical, mechanical and energy characterization of wood pellets obtained from three common tropical species. *PeerJ*, 2018(9). <https://doi.org/10.7717/peerj.5504>
- Assonfack, H. L., Yona Cheumani, A. M., Ndinteh, D., Lembe, J. T., Nga, J. B., & Ndikontar, M. K. (2023). Preparation and Characterisation of Cellulose by Delignification of Eteng (*Ceiba pentandra*) Wood in Formic Acid-Acetic Acid-Water Solvent Mixtures. *Journal of Polymers and the Environment*, 31(3), 913–921. <https://doi.org/10.1007/s10924-022-02641-9>
- Ba, D., & Boyaci, I. H. (2007). Modeling and optimization i: Usability of response surface methodology. *Journal of Food Engineering*, 78(3), 836–845. <https://doi.org/10.1016/j.jfoodeng.2005.11.024>
- Badan Pusat Statistik. (2017). *Luas areal tanaman perkebunan rakyat menurut jenis tanaman 2000 – 2015*. Badan Pusat Statistik, Jakarta.
- Basu, P., Rao, S., Acharya, B., & Dhungana, A. (2013). Effect of torrefaction on the density and volume changes of coarse biomass particles. *Canadian Journal of Chemical Engineering*, 91(6), 1040–1044. <https://doi.org/10.1002/cjce.21817>
- Bergström, D., Israelsson, S., Öhman, M., Dahlqvist, S. A., Gref, R., Boman, C., & Wästerlund, I. (2008). Effects of raw material particle size distribution on the characteristics of Scots pine sawdust fuel pellets. *Fuel Processing Technology*, 89(12), 1324–1329. <https://doi.org/10.1016/j.fuproc.2008.06.001>
- Bezerra, M. A., Santelli, R. E., Oliveira, E. P., Villar, L. S., & Escalera, L. A. (2008). Response surface methodology (RSM) as a tool for optimization in analytical chemistry. *Talanta*, 76(5), 965–977. <https://doi.org/10.1016/j.talanta.2008.05.019>
- Brand, M. A., Mariano Rodrigues, T., Peretti da Silva, J., & de Oliveira, J. (2021). Recovery of agricultural and wood wastes: The effect of biomass blends on the quality of pellets. *Fuel*, 284. <https://doi.org/10.1016/j.fuel.2020.118881>
- Bridgeman, T. G., Jones, J. M., Shield, I., & Williams, P. T. (2008). Torrefaction of reed canary grass, wheat straw and willow to enhance solid fuel qualities and combustion properties. *Fuel*, 87(6), 844–856. <https://doi.org/10.1016/j.fuel.2007.05.041>
- British Standard House. (1957). *British Standard Methods of Testing Small Clear Specimens of Timber NO. 373*. British Standard House. London.
- Canabal, A. I., Castañeiras, J. P., Añón, J. A. R., Fraga, C. E., & Soalleiro, R. R. (2023). Predicting the energy properties of torrefied debarked pine pellets from torrefaction temperature and residence time. *Renewable Energy*, 218. <https://doi.org/10.1016/j.renene.2023.119346>

## DAFTAR PUSTAKA (Lanjutan)

- Cen, K., Zhang, J., Chen, D., Chen, F., Zhang, Y., & Ma, H. (2020). Comparative study of the fuel quality and torrefaction performance of biomass and its molded pellets: effects of temperature and residence time. *Energy Sources, Part A: Recovery, Utilization and Environmental Effects*. <https://doi.org/10.1080/15567036.2020.1814453>
- Chen, D., Zheng, Z., Fu, K., Zeng, Z., Wang, J., & Lu, M. (2015). Torrefaction of biomass stalk and its effect on the yield and quality of pyrolysis products. *Fuel*, *159*, 27–32. <https://doi.org/10.1016/j.fuel.2015.06.078>
- Chen, W. H., Lin, B. J., Lin, Y. Y., Chu, Y. S., Ubando, A. T., Show, P. L., Ong, H. C., Chang, J. S., Ho, S. H., Culaba, A. B., Pétrissans, A., & Pétrissans, M. (2021). Progress in biomass torrefaction: Principles, applications and challenges. *Progress in Energy and Combustion Science*, *82*. <https://doi.org/10.1016/j.pecs.2020.100887>
- Chen, W. H., Peng, J., & Bi, X. T. (2015). A state-of-the-art review of biomass torrefaction, densification and applications. *Renewable and Sustainable Energy Reviews*, *44*, 847–866. <https://doi.org/10.1016/j.rser.2014.12.039>
- Chen, X., Liang, J., Liao, P., Huang, W., He, J., & Chen, J. (2021). Effect of process parameters and raw material characteristics on the physical and mechanical quality of sugarcane bagasse pellets. *Biomass and Bioenergy*, *154*, 106242. <https://doi.org/10.1016/J.BIOMBIOE.2021.106242>
- Chen, Y., Yang, H., Yang, Q., Hao, H., Zhu, B., & Chen, H. (2014). Torrefaction of agriculture straws and its application on biomass pyrolysis poly-generation. *Bioresource Technology*, *156*, 70–77. <https://doi.org/10.1016/j.biortech.2013.12.088>
- Cui, X., Yang, J., Shi, X., Lei, W., Huang, T., & Bai, C. (2019). Pelletization of sunflower seed husks: Evaluating and optimizing energy consumption and physical properties by response surface methodology (RSM). *Processes*, *7*(9). <https://doi.org/10.3390/pr7090591>
- DIN EN 15270. (2007). *Pellet burners for small heating boilers. Definition, requirements, testing, marking*. Deutsches Institut für Normung. Berlin.
- Dubey, M. K., Pang, S., & Walker, J. (2012). Changes in chemistry, color, dimensional stability and fungal resistance of *Pinus radiata* D. Don wood with oil heat-treatment. *Holzforschung*, *66*(1), 49–57. <https://doi.org/10.1515/HF.2011.117>
- Dwianto, W., Damayanti, R., Rulliaty, S., Lestari, E., Bahanawan, A., Adi, D. S., Darmawan, T., Wihermanto, & Sugiyama, J. (2020). Exploration of wood species at Enggano Island: Identification and fiber morphology measurements. *IOP Conference Series: Earth and Environmental Science*, *591*(1). <https://doi.org/10.1088/1755-1315/591/1/012040>
- Getaye, A., Gabiyu, N., & Bilal, B. (2018). Improvement of the Energy Density of Rice Husk Using Dry and Chemical Treated Torrefaction. *Journal of Advanced Chemical Engineering*, *08*(01). <https://doi.org/10.4172/2090-4568.1000185>

## DAFTAR PUSTAKA (Lanjutan)

- Gönen, M., Johnson, W. O., Lu, Y., & Westfall, P. H. (2005). The Bayesian two-sample t test. *American Statistician*, 59(3), 252–257. <https://doi.org/10.1198/000313005X55233>
- Graham, S., Ogunfayo, I., Hall, M. R., Snape, C., Quick, W., Weatherstone, S., & Eastwick, C. (2016). Changes in mechanical properties of wood pellets during artificial degradation in a laboratory environment. *Fuel Processing Technology*, 148, 395–402. <https://doi.org/10.1016/j.fuproc.2016.03.020>
- Greinert, A., Mrówczyńska, M., & Szefer, W. (2019). The use of waste biomass from the wood industry and municipal sources for energy production. *Sustainability (Switzerland)*, 11(11). <https://doi.org/10.3390/su11113083>
- Grycova, B., Klemencova, K., Jezerska, L., Zidek, M., & Lestinsky, P. (2023). Effect of torrefaction on pellet quality parameters. *Biomass Conversion and Biorefinery*, 13(14), 13235–13243. <https://doi.org/10.1007/s13399-021-02164-8>
- Hao, Y., Chen, H., Wei, Y. M., & Li, Y. M. (2016). The influence of climate change on CO<sub>2</sub> (carbon dioxide) emissions: An empirical estimation based on Chinese provincial panel data. *Journal of Cleaner Production*, 131, 667–677. <https://doi.org/10.1016/j.jclepro.2016.04.117>
- Harja, D., Martini, E., Munawir, A., & Lalisa, S. (2017). *Modelling tree production based on farmers' knowledge: case for kapok (Ceiba pentandra) and candlenut (Aleurites moluccana) under agroforestry scenarios Agroforestry and Forestry in Sulawesi series*. <https://doi.org/http://dx.doi.org/10.5716/WP17361.PDF>
- Hasna, A. H., Sutapa, J. P. G., & Irawati, D. (2019). Pengaruh Ukuran Serbuk dan Penambahan Tempurung Kelapa Terhadap Kualitas Pelet Kayu Sengon. *Jurnal Ilmu Kehutanan*, 13, 170–180. <https://jurnal.ugm.ac.id/jikfkt>
- Haykiri-Acma, H., & Yaman, S. (2024). Effects of torrefaction after pelleting (TAP) process on strength and fuel characteristics of binderless bio-pellets. *Biomass Conversion and Biorefinery*, 14(3), 3489–3500. <https://doi.org/10.1007/s13399-022-02599-7>
- Horabik, J., Bańda, M., Józefaciuk, G., Adamczuk, A., Polakowski, C., Stasiak, M., Parafiniuk, P., Wiącek, J., Kobyłka, R., & Molenda, M. (2021). Breakage strength of wood sawdust pellets: Measurements and modelling. *Materials*, 14(12). <https://doi.org/10.3390/ma14123273>
- Ismail, R. I., Leng, L. Y., Makhtar, N. L., Rahman, A. A. A., Dali, J. A. A., Shaari, A. R., Yee, K. C., Mohamed, A. R., Jamalludin, M. R., Razak, N. A., & Draman, W. N. A. W. (2020). The effect of torrefaction reaction temperature on the *Elaeis guineensis* Empty Fruit Bunch (EFB) pellet durability and calorific value. *IOP Conference Series: Materials Science and Engineering*, 932(1). <https://doi.org/10.1088/1757-899X/932/1/012118>
- Iyiola Alonge, O., & Olanrewaju Obayopo, S. (2025). Characterization of briquettes made from low- and high-density wood sawdust mixed with palm kernel shell. *Journal of Renewable Energy and Environment*. <https://doi.org/10.30501/jree.2025.465019.1971>

## DAFTAR PUSTAKA (Lanjutan)

- Japanese Agricultural Standard (JAS). (2021). *Japanese Agricultural Standard (JAS) for wood pellets fuel*. Japanese Agricultural Standard (JAS). Tokyo.
- Jifara, B., Diriba, M., & Mengesha, A. (2022). Pelletization of mixed torrefied corn cob and khat stem to enhance the physicochemical and thermal properties of solid biofuel and parametric optimization. *Biomass Conversion and Biorefinery*. <https://doi.org/10.1007/s13399-022-02627-6>
- Karkania, V., Fanara, E., & Zabaniotou, A. (2012). Review of sustainable biomass pellets production - A study for agricultural residues pellets' market in Greece. In *Renewable and Sustainable Energy Reviews* (Vol. 16, Issue 3, pp. 1426–1436). <https://doi.org/10.1016/j.rser.2011.11.028>
- Khuri, A. I., & Mukhopadhyay, S. (2010). Response surface methodology. In *Wiley Interdisciplinary Reviews: Computational Statistics* (Vol. 2, Issue 2, pp. 128–149). <https://doi.org/10.1002/wics.73>
- Kouassi, A. K., Zo-Bi, I. C., Hérault, B., Konan, I. K., Dago, M. R., Lasbats, B., Schmitt, S., N'Guessan, A. E., & Aussenac, R. (2025). Tree growth in West African cocoa agroforestry systems: high timber yields and superior performance of natural regeneration. *Annals of Forest Science*, 82(1). <https://doi.org/10.1186/s13595-025-01286-7>
- Kudo, S., Okada, J., Ikeda, S., Yoshida, T., Asano, S., & Hayashi, J. I. (2019). Improvement of Pelletability of Woody Biomass by Torrefaction under Pressurized Steam. *Energy and Fuels*, 33, 11253–11262. <https://doi.org/10.1021/acs.energyfuels.9b02939>
- Kumar, L., Koukoulas, A. A., Mani, S., & Satyavolu, J. (2017). Integrating torrefaction in the wood pellet industry: A critical review. In *Energy and Fuels* (Vol. 31, Issue 1, pp. 37–54). American Chemical Society. <https://doi.org/10.1021/acs.energyfuels.6b02803>
- Larson, M. G. (2008). Analysis of variance. In *Circulation* (Vol. 117, Issue 1, pp. 115–121). <https://doi.org/10.1161/CIRCULATIONAHA.107.654335>
- Larsson, S. H., Rudolfsson, M., Nordwaeger, M., Olofsson, I., & Samuelsson, R. (2013). Effects of moisture content, torrefaction temperature, and die temperature in pilot scale pelletizing of torrefied Norway spruce. *Applied Energy*, 102, 827–832. <https://doi.org/10.1016/j.apenergy.2012.08.046>
- Larsson, S. H., & Samuelsson, R. (2017). Prediction of ISO 17831-1:2015 mechanical biofuel pellet durability from single pellet characterization. *Fuel Processing Technology*, 163, 8–15. <https://doi.org/10.1016/j.fuproc.2017.04.004>
- Lehtikangas P. (2001). Quality properties of pelletised sawdust, logging residues and bark. *Biomass and Bioenergy*, 20, 351–360. [https://doi.org/10.1016/S0961-9534\(00\)00092-1](https://doi.org/10.1016/S0961-9534(00)00092-1)
- Li, Y. H., & Kuo, W. C. (2020). The study of optimal parameters of oxygen-enriched combustion in fluidized bed with optimal torrefied woody waste. *International Journal of Energy Research*, 44(9), 7416–7434. <https://doi.org/10.1002/er.5459>

### DAFTAR PUSTAKA (Lanjutan)

- Liu, Z., Jiang, Z., Cai, Z., Fei, B., YanYu, & Liu, X. (2013). Effects of carbonization conditions on properties of bamboo pellets. *Renewable Energy*, *51*, 1–6. <https://doi.org/10.1016/j.renene.2012.07.034>
- Manouchehrinejad, M., & Mani, S. (2018). Torrefaction after pelletization (TAP): Analysis of torrefied pellet quality and co-products. *Biomass and Bioenergy*, *118*, 93–104. <https://doi.org/10.1016/j.biombioe.2018.08.015>
- Matali, S., Rahman, N. A., Idris, S. S., & Yaacob, N. (2018). Enhancement of Energy Properties of *Leucaena Leucocephala* Pellets via Torrefaction and its Non-Isothermal Decomposition Kinetics. *International Journal of Engineering & Technology*, *7*(4), 306–310. <https://www.researchgate.net/publication/328837508>
- Mckendry, P. (2002). Energy production from biomass (part 1): overview of biomass. *Bioresource Technology*, *83*, 37–46.
- Mišljenović, N., Bach, Q. V., Tran, K. Q., Salas-Bringas, C., & Skreiberg, Ø. (2014). Torrefaction influence on pelletability and pellet quality of norwegian forest residues. *Energy and Fuels*, *28*(4), 2554–2561. <https://doi.org/10.1021/ef4023674>
- Mitchual, S. J., Frimpong-Mensah, K., & Darkwa, N. A. (2014). Evaluation of Fuel Properties of Six Tropical Hardwood Timber Species for Briquettes. *Journal of Sustainable Bioenergy Systems*, *04*(01), 1–9. <https://doi.org/10.4236/jsbs.2014.41001>
- Mitchual, S. J., Frimpong-Mensah, K., Darkwa, N. A., & Akowuah, J. O. (2013). Briquettes from maize cobs and *Ceiba pentandra* at room temperature and low compacting pressure without a binder. *International Journal of Energy and Environmental Engineering*, *4*, 1–7. <https://doi.org/10.1186/2251-6832-4-38>
- Mitchual, S. J., Katamani, P., & Afrifa, K. A. (2019). Fuel characteristics of binder free briquettes made at room temperature from blends of oil palm mesocarp fibre and *Ceiba pentandra*. *Biomass Conversion and Biorefinery*, *9*(3), 541–551. <https://doi.org/10.1007/s13399-019-00410-8>
- Naimi, L. J., Collard, F., Bi, X., Lim, C. J., & Sokhansanj, S. (2016). Development of size reduction equations for calculating power input for grinding pine wood chips using hammer mill. *Biomass Conversion and Biorefinery*, *6*(4), 397–405. <https://doi.org/10.1007/s13399-015-0195-1>
- Nawawi, D. S., Maria, A., Firdaus, R. D., Rahayu, I. S., Fatrawana, A., Pramata, F., Sinaga, P. S., & Fatriasari, W. (2023). Improvement of Dimensional Stability of Tropical Light-Wood *Ceiba pentandra* (L) by Combined Alkali Treatment and Densification. *Journal of the Korean Wood Science and Technology*, *51*(2), 133–144. <https://doi.org/10.5658/WOOD.2023.51.2.133>
- Neill, J. W., & Johnson, D. E. (1984). Testing For Lack of Fit In Regression - A Review. *Communications in Statistics - Theory and Methods*, *13*(4), 485–511. <https://doi.org/10.1080/03610928408828696>
- Nguyen, Q. N., Cloutier, A., Achim, A., & Stevanovic, T. (2015). Effect of process parameters and raw material characteristics on physical and mechanical properties of wood pellets made from sugar maple particles. *Biomass and Bioenergy*, *80*, 338–349. <https://doi.org/10.1016/j.biombioe.2015.06.010>

## DAFTAR PUSTAKA (Lanjutan)

- Nishiguchi, S., & Tabata, T. (2016). Assessment of social, economic, and environmental aspects of woody biomass energy utilization: Direct burning and wood pellets. In *Renewable and Sustainable Energy Reviews* (Vol. 57, pp. 1279–1286). Elsevier Ltd. <https://doi.org/10.1016/j.rser.2015.12.213>
- Niu, Y., Lv, Y., Lei, Y., Liu, S., Liang, Y., Wang, D., & Hui, S. (2019). Biomass torrefaction: properties, applications, challenges, and economy. *Renewable and Sustainable Energy Reviews*, 115. <https://doi.org/10.1016/j.rser.2019.109395>
- Nordahlia, A. S., Noraini, T., Chung, R. C. K., Lim, S. C., Nadiyah, I., Azahana, N. A., & Solihani, N. S. (2016). Comparative wood anatomy of three *Bombax* species and *Ceiba pentandra* (*Malvaceae: Bombacoideae*) in Malaysia. *Malayan Nature Journal*, 68, 203–216.
- Nyakuma, B. B., Wong, S. L., Faizal, H. M., Hambali, H. U., Oladokun, O., Amran, T., & Abdullah, T. (2020). Carbon dioxide torrefaction of oil palm empty fruit bunches pellets: characterisation and optimisation by response surface methodology. *Biomass Conversion and Biorefinery*, 12, 5881–5900. <https://doi.org/10.1007/s13399-020-01071-8/Published>
- Obernberger, I., & Thek, G. (2004). Physical characterisation and chemical composition of densified biomass fuels with regard to their combustion behaviour. *Biomass and Bioenergy*, 27(6), 653–669. <https://doi.org/10.1016/j.biombioe.2003.07.006>
- Oluoti, K., Doddapaneni, T. R. K. C., & Richards, T. (2018). Investigating the kinetics and biofuel properties of *Alstonia congensis* and *Ceiba pentandra* via torrefaction. *Energy*, 150, 134–141. <https://doi.org/10.1016/j.energy.2018.02.086>
- Park, S., Kim, S. J., Oh, K. C., Cho, L. H., Kim, M. J., Jeong, I. S., Lee, C. G., & Kim, D. H. (2020). Characteristic analysis of torrefied pellets: Determining optimal torrefaction conditions for agri-byproduct. *Energies*, 13(2). <https://doi.org/10.3390/en13020423>
- Pellets Fuels Institute (PFI). (2010). *PFI standard specification for residential/commercial densified fuel*. PFI, USA.
- Peng, J. H., Bi, H. T., Sokhansanj, S., & Lim, J. C. (2012). A study of particle size effect on biomass torrefaction and densification. *Energy and Fuels*, 26(6), 3826–3839. <https://doi.org/10.1021/ef3004027>
- Poddar, S., Kamruzzaman, M., Sujan, S. M. A., Hossain, M., Jamal, M. S., Gafur, M. A., & Khanam, M. (2014). Effect of compression pressure on lignocellulosic biomass pellet to improve fuel properties: Higher heating value. *Fuel*, 131, 43–48. <https://doi.org/10.1016/j.fuel.2014.04.061>
- Prasetyadi, G. V., & Sutapa, J. P. G. (2023). Utilizing Merbau Wood and Coconut Shell Wastes as Biofuel in the Form of Pellets. *Journal of Ecological Engineering*, 24(1), 172–178. <https://doi.org/10.12911/22998993/156057>
- Prins, M. J., Ptasiński, K. J., & Janssen, F. J. J. G. (2006). More efficient biomass gasification via torrefaction. *Energy*, 31(15), 3458–3470. <https://doi.org/10.1016/j.energy.2006.03.008>

### DAFTAR PUSTAKA (Lanjutan)

- Proszak, D., Rabczak, S., & Rybak-Wilusz, E. (2020). Ecological and financial effects of coal-fired boiler replacement with alternative fuels. *Journal of Ecological Engineering*, 21(1), 1–7. <https://doi.org/10.12911/22998993/113638>
- Putra, H. P., Kuswa, F. M., Prayoga, M. Z. E., Samudra, H. E., Prabowo, & Hariana, H. (2024). Investigation on combustion characteristics and ash-related issues of *Calliandra calothyrsus* and *Gliricidia sepium* using thermogravimetric analysis and drop tube furnace. *Bioresource Technology*, 394. <https://doi.org/10.1016/j.biortech.2023.130212>
- Rashid, S. R. M., Saleh, S., & Samad, N. A. F. A. (2017). Proximate Analysis and Calorific Value Prediction using Linear Correlation Model for Torrefied Palm Oil Wastes. *MATEC Web of Conferences*, 131. <https://doi.org/10.1051/mateconf/201713104002>
- Rehman, A., Rauf, A., Ahmad, M., Chandio, A. A., & Deyuan, Z. (2019). The effect of carbon dioxide emission and the consumption of electrical energy, fossil fuel energy, and renewable energy, on economic performance: evidence from Pakistan. *Environmental Science and Pollution Research*, 26(21), 21760–21773. <https://doi.org/10.1007/s11356-019-05550-y>
- Rivers, M.C. & Mark, J. (2017). *Ceiba pentandra*. *The IUCN Red List of Threatened Species* 2017: e.T61782438A61782442. <https://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T61782438A61782442.en>. Accessed on 21 September 2023.
- Rudolfsson, M., Borén, E., Pommer, L., Nordin, A., & Lestander, T. A. (2017). Combined effects of torrefaction and pelletization parameters on the quality of pellets produced from torrefied biomass. *Applied Energy*, 191, 414–424. <https://doi.org/10.1016/j.apenergy.2017.01.035>
- Sadeq, A., Pietsch-Braune, S., & Heinrich, S. (2024). Impact of press channel diameter-to-length ratio on the mechanical properties of biomass pellets during storage. *Fuel Processing Technology*, 265. <https://doi.org/10.1016/j.fuproc.2024.108149>
- Sahid, M., & Zeven A.C. (2003). *Ceiba pentandra (L.) Gaertn.* In: Brink, M and Escobin, R.P. (Editors): *Plant Resources of South-East Asia No 17: Fibre plants*. PROSEA Foundation, Bogor, Indonesia. Database record: [prota4u.org/prosea](http://prota4u.org/prosea)
- Samuelsson, R., Larsson, S. H., Thyrel, M., & Lestander, T. A. (2012). Moisture content and storage time influence the binding mechanisms in biofuel wood pellets. *Applied Energy*, 99, 109–115. <https://doi.org/10.1016/j.apenergy.2012.05.004>
- Sarker, T. R., Nanda, S., Meda, V., & Dalai, A. K. (2023). Densification of waste biomass for manufacturing solid biofuel pellets: a review. In *Environmental Chemistry Letters* (Vol. 21, Issue 1, pp. 231–264). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1007/s10311-022-01510-0>

### DAFTAR PUSTAKA (Lanjutan)

- Scherzinger, M., & Kaltschmitt, M. (2019). Heat induced pre-treatment technologies for lignocellulosic biomass. A comparison of different processes and techniques. *Journal of Ecological Engineering*, 20(7), 134–146. <https://doi.org/10.12911/22998993/109876>
- Shang, L., Nielsen, N. P. K., Stelte, W., Dahl, J., Ahrenfeldt, J., Holm, J. K., Arnavat, M. P., Bach, L. S., & Henriksen, U. B. (2014). Lab and Bench-Scale Pelletization of Torrefied Wood Chips-Process Optimization and Pellet Quality. *Bioenergy Research*, 7(1), 87–94. <https://doi.org/10.1007/s12155-013-9354-z>
- Simonic, M., Goricanec, D., & Urbanc, D. (2020). Impact of torrefaction on biomass properties depending on temperature and operation time. *Science of the Total Environment*, 740. <https://doi.org/10.1016/j.scitotenv.2020.140086>
- Siyal, A. A., Liu, Y., Mao, X., Ali, B., Husaain, S., Dai, J., Zhang, T., Fu, J., & Liu, G. (2021). Characterization and quality analysis of wood pellets: effect of pelletization and torrefaction process variables on quality of pellets. *Biomass Conversion and Biorefinery*, 11, 2201–2217. <https://doi.org/10.1007/s13399-020-01235-6/Published>
- Siyal, A. A., Mao, X., Liu, Y., Ran, C., Fu, J., Kang, Q., Ao, W., Zhang, R., Dai, J., & Liu, G. (2020). Torrefaction subsequent to pelletization: Characterization and analysis of furfural residue and sawdust pellets. *Waste Management*, 113, 210–224. <https://doi.org/10.1016/j.wasman.2020.05.037>
- Sjöström, J., & Blomqvist, P. (2014). Direct measurements of thermal properties of wood pellets: Elevated temperatures, fine fractions and moisture content. *Fuel*, 134, 460–466. <https://doi.org/10.1016/j.fuel.2014.05.088>
- Standar Nasional Indonesia (SNI). (2018). *SNI 8675-2018 Pelet biomassa untuk energi*. BSN, Indonesia.
- Sukarta, I. N., Sastrawidana, I. D. K., & Ayuni, N. P. S. (2018). Proximate analysis and calorific value of pellets in biosolid combined with wood waste biomass. *Journal of Ecological Engineering*, 19(3), 185–190. <https://doi.org/10.12911/22998993/86153>
- Sumardi, I., Dungani, R., Suhaya, Y., Rumidatul, A., & Rofii, M. N. (2018). Alternative Materials for Strandboards Made with Waste Veneer from Industrial Plywood In Indonesia. *BioResources*, 13(4), 8385–8393. <https://doi.org/https://doi.org/10.15376/biores.13.4.8385-8393>
- Sutapa, J. P. G., & Hidayatullah, A. H. (2023). Torrefaction for Improving Quality of Pellets Derived from *Calliandra* Wood. *Journal of the Korean Wood Science and Technology*, 51(5), 381–391. <https://doi.org/10.5658/WOOD.2023.51.5.381>
- Tumuluru, J. S., Sokhansanj, S., Hess, J. R., Wright, C. J., & Boardman, R. D. (2011). A review on biomass torrefaction process and product properties for energy applications. *Industrial Biotechnology*, 7(5), 384–401. <https://doi.org/https://doi.org/10.1089/ind.2011.7.384>

### DAFTAR PUSTAKA (Lanjutan)

- van der Stelt, M. J. C., Gerhauser, H., Kiel, J. H. A., & Ptasinski, K. J. (2011). Biomass upgrading by torrefaction for the production of biofuels: A review. *Biomass and Bioenergy*, 35(9), 3748–3762. <https://doi.org/10.1016/j.biombioe.2011.06.023>
- Walia, Y. K., Kishore, K., Vasu, D., & Gupta, D. K. (2009). Physico-chemical analysis of *Ceiba pentandra* (Kapok). *International Journal of Theoretical & Applied Sciences*, 1, 15–18. <https://www.researchgate.net/publication/267781192>
- Wang, L., Riva, L., Skreiberg, Ø., Khalil, R., Bartocci, P., Yang, Q., Yang, H., Wang, X., Chen, D., Rudolfsson, M., & Nielsen, H. K. (2020). Effect of torrefaction on properties of pellets produced from woody biomass. *Energy and Fuels*, 34(12), 15343–15354. <https://doi.org/10.1021/acs.energyfuels.0c02671>
- Wattananoi, W., Khumsak, O., & Worasuwannarak, N. (2011). Upgrading of biomass by torrefaction and densification process. *IEEE First Conference on Clean Energy and Technology CET*.
- Xu, M., Fralick, D., Zheng, J. Z., Wang, B., Tu, X. M., & Feng, C. (2017). The differences and similarities between two-sample t-test and paired t-test. *Shanghai Archives of Psychiatry*, 29(3), 184–188. <https://doi.org/10.11919/j.issn.1002-0829.217070>
- Yılgin, M., Duranay, N., & Pehlivan, D. (2019). Torrefaction and combustion behaviour of beech wood pellets. *Journal of Thermal Analysis and Calorimetry*, 138(1), 819–826. <https://doi.org/10.1007/s10973-019-08250-4>
- Yolmeh, M., & Jafari, S. M. (2017). Applications of Response Surface Methodology in the Food Industry Processes. In *Food and Bioprocess Technology* (Vol. 10, Issue 3, pp. 413–433). Springer New York LLC. <https://doi.org/10.1007/s11947-016-1855-2>
- Yu, Y., Zhu, Z., Wang, L., Wang, G., & Bai, X. (2021). Effect of Torrefaction Treatment on Physical and Fuel Properties of *Caragana (Caragana korshinskii)* Pellets. *Bioenergy Research*, 14(4), 1277–1288. <https://doi.org/10.1007/s12155-020-10235-3>
- Zhang, Y., Chen, F., Chen, D., Cen, K., Zhang, J., & Cao, X. (2022). Upgrading of biomass pellets by torrefaction and its influence on the hydrophobicity, mechanical property, and fuel quality. *Biomass Conversion and Biorefinery*, 12(6), 2061–2070. <https://doi.org/10.1007/s13399-020-00666-5>