

## DAFTAR PUSTAKA

- Ahmad, N. D., Kusmono, Wildan, M. W., & Herianto. (2023). Preparation and properties of cellulose nanocrystals-reinforced Poly (lactic acid) composite filaments for 3D printing applications. *Results in Engineering*, *17*, 100842. <https://doi.org/https://doi.org/10.1016/j.rineng.2022.100842>
- Alex, Y., Divakaran, N. C., Pattanayak, I., Lakshyajit, B., Ajay, P. V., & Mohanty, S. (2025). Comprehensive study of PLA material extrusion 3D printing optimization and its comparison with PLA injection molding through life cycle assessment. *Sustainable Materials and Technologies*, *43*. <https://doi.org/10.1016/j.susmat.2024.e01222>
- Beltrán, F. R., Arrieta, M. P., Moreno, E., Gaspar, G., Muneta, L. M., Carrasco-Gallego, R., Yáñez, S., Hidalgo-Carvajal, D., de la Orden, M. U., & Urreaga, J. M. (2021). Evaluation of the Technical Viability of Distributed Mechanical Recycling of PLA 3D Printing Wastes. *Polymers*, *13*(8). <https://doi.org/10.3390/polym13081247>
- Beltrán, F. R., Gaspar, G., Dadrás Chomachayi, M., Jalali-Arani, A., Lozano-Pérez, A. A., Cenis, J. L., de la Orden, M. U., Pérez, E., & Martínez Urreaga, J. M. (2021). Influence of addition of organic fillers on the properties of mechanically recycled PLA. *Environmental Science and Pollution Research*, *28*(19), 24291–24304. <https://doi.org/10.1007/s11356-020-08025-7>
- Callister Jr, W. D., & Rethwisch, D. G. (2020). *Materials science and engineering: an introduction*. John Wiley & sons.
- Cevahir, A. (2017). Glass fibers. Dalam *Fiber technology for fiber-reinforced composites* (hlm. 99–121). Elsevier.
- Chandra Kandpal, B., Gupta, D. K., Kumar, A., Kumar Jaisal, A., Umar Ranjan, A., Rivastava, A., & Haudhary, P. (2021). *Effect of heat treatment on properties and microstructure of steels*. *44*, 199–205. <https://doi.org/10.1016/j.matpr.2020.08.556>
- Chen, J., Liu, Z., Qiu, S., Li, Y., Sun, J., Li, H., Gu, X., & Zhang, S. (2023). A new strategy for the preparation of polylactic acid composites with flame retardancy, UV resistance, degradation, and recycling performance. *Chemical Engineering Journal*, *472*. <https://doi.org/10.1016/j.cej.2023.145000>
- Fico, D., Esposito Corcione, C., Acocella, M. R., Rizzo, D., De Carolis, V., & Maffezzoli, A. (2023a). Thermal stabilization of recycled PLA for 3D printing by addition of charcoal. *Journal of Thermal Analysis and Calorimetry*, *148*(23), 13107–13119.
- Fico, D., Esposito Corcione, C., Acocella, M. R., Rizzo, D., De Carolis, V., & Maffezzoli, A. (2023b). Thermal stabilization of recycled PLA for 3D printing

by addition of charcoal. *Journal of Thermal Analysis and Calorimetry*, 148(23), 13107–13119.

- Finnerty, J., Rowe, S., Howard, T., Connolly, S., Doran, C., Devine, D. M., Gately, N. M., Chyzna, V., Portela, A., & Bezerra, G. S. N. (2023a). Effect of mechanical recycling on the mechanical properties of PLA-based natural fiber-reinforced composites. *Journal of Composites Science*, 7(4), 141.
- Finnerty, J., Rowe, S., Howard, T., Connolly, S., Doran, C., Devine, D. M., Gately, N. M., Chyzna, V., Portela, A., & Bezerra, G. S. N. (2023b). Effect of mechanical recycling on the mechanical properties of PLA-based natural fiber-reinforced composites. *Journal of Composites Science*, 7(4), 141.
- Gay, D. (2022). *Composite materials: design and applications*. CRC press.
- Han, J. (2024). *Trial Production and Experimental Study on Performance of Ceramsite-based Sound-absorbing Plate for Metal Noise Barrier*. 68(1), 204–211. <https://doi.org/10.13238/j.issn.1004-2954.202206270003>
- Hidalgo-Carvajal, D., Muñoz, Á. H., Garrido-González, J. J., Carrasco-Gallego, R., & Alcázar Montero, V. (2023). Recycled PLA for 3D Printing: A Comparison of Recycled PLA Filaments from Waste of Different Origins after Repeated Cycles of Extrusion. *Polymers*, 15(17). <https://doi.org/10.3390/polym15173651>
- Höhne, G. W. H., Hemminger, W. F., & Flammersheim, H.-J. (2003). Applications of differential scanning calorimetry. Dalam *Differential Scanning Calorimetry* (hlm. 147–244). Springer.
- Huang, S., Wang, B., & Yan, L. (2021). Interphase and interfacial properties of composite materials. Dalam *Composite Materials: Manufacturing, Properties and Applications* (hlm. 151–177). <https://doi.org/10.1016/B978-0-12-820512-9.00020-4>
- Ismail, K. I., Pang, R., Ahmed, R., & Yap, T. C. (2023). Tensile properties of in situ 3D printed glass fiber-reinforced PLA. *Polymers*, 15(16), 3436.
- Jaidka, S., Sharma, R., Kaur, S., & Singh, D. P. (2022). *Scanning Electron Microscopy (SEM): Learning to Generate and Interpret the Topographical Aspects of Materials* (hlm. 165–185). [https://doi.org/10.1007/978-3-030-99542-3\\_7](https://doi.org/10.1007/978-3-030-99542-3_7)
- Jamaluddin, J. F., Firouzi, A., Islam, M. R., & Yahaya, A. N. A. (2020). Effects of luffa and glass fibers in polyurethane-based ternary sandwich composites for building materials. *SN Applied Sciences*, 2(7). <https://doi.org/10.1007/s42452-020-3037-0>
- Jana, S., Gandhi, A., & Sen, K. K. (2023). Green Composites Reinforced with Chitin and Chitosan. Dalam *Green Micro- and Nanocomposites* (hlm. 113–142). <https://doi.org/10.1201/9781003427568-4>

- Jubenville, D., Tzoganakis, C., & Mekonnen, T. H. (2022). Recycled PLA – Wood flour based biocomposites: Effect of wood flour surface modification, PLA recycling, and maleation. *Construction and Building Materials*, 352. <https://doi.org/10.1016/j.conbuildmat.2022.129026>
- Kanade, P., & Rana, R. (2024). Recycling of Polypropylene to Produce Jute/rPP Biocomposites: Quantitative Analysis of Thermo-Mechanical Properties. Dalam *Advancement in Solid Waste Management and Treatment* (hlm. 157–167). [https://doi.org/10.1007/978-3-031-64873-1\\_12](https://doi.org/10.1007/978-3-031-64873-1_12)
- Karamanlioglu, M., Preziosi, R., & Robson, G. D. (2017). Abiotic and biotic environmental degradation of the bioplastic polymer poly(lactic acid): A review. *Polymer Degradation and Stability*, 137, 122–130. <https://doi.org/10.1016/j.polymdegradstab.2017.01.009>
- Khan, A., Rangappa, S. M., Jawaid, M., Siengchin, S., & Asiri, A. (2020). Hybrid Fiber Composites: Materials, Manufacturing, Process Engineering. Dalam *Hybrid Fiber Composites: Materials, Manufacturing, Process Engineering*. <https://doi.org/10.1002/9783527824571>
- Kumar, S. M., Ravikiran, K. R., & Govindaraju, H. K. (2018). Development of E-glass woven fabric/polyester resin polymer matrix composite and study of mechanical properties. *Materials Today: Proceedings*, 5(5), 13367–13374.
- Li, Y. C., Wang, S., Qian, S., Liu, Z., Weng, Y., & Zhang, Y. (2024). Depolymerization and Re/Upycling of Biodegradable PLA Plastics. Dalam *ACS Omega* (Vol. 9, Nomor 12, hlm. 13509–13521). American Chemical Society. <https://doi.org/10.1021/acsomega.3c08674>
- Lua, J., Yan, J., Shrestha, K., Piccoli, J., Karuppiah, A., & Phan, N. D. (2024). *Multi-Physics Modeling and Optimization Towards a Digital Twin of Quenching Processes of Large-Scale Metallic Structures*. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85196729485&partnerID=40&md5=28e94bbf32c2c6dcca50bdd3195c34c>
- Moslehi, A., Aji, A., Heuzey, M.-C., Rahimizadeh, A., & Lessard, L. (2022). Polylactic acid/recycled wind turbine glass fiber composites with enhanced mechanical properties and toughness. *Journal of Applied Polymer Science*, 139(15). <https://doi.org/10.1002/app.51934>
- Muflikhun, M. A. (2022). *Proses Manufaktur dan Mekanika komposit*. UGM PRESS.
- Nandiyanto, A. B. D., Oktiani, R., & Ragadhita, R. (2019). How to read and interpret FTIR spectroscopy of organic material. *Indonesian Journal of Science and Technology*, 4(1), 97–118.

- Pérez-Fonseca, A. A., González-López, M. E., & Robledo-Ortíz, J. R. (2023). Reprocessing and recycling of poly (lactic acid): a review. *Journal of Polymers and the Environment*, 31(10), 4143–4159.
- Reyes Acosta, Y. K., Cruz Martinez, W. E., Reyes Acosta, A. V, Cepeda Tovar, V. A., Contreras Esquivel, J. C., Aguilar Gonzales, C. N., Narro Cespedes, R. I., & Reyna Martinez, R. (2024). Thermal Properties by Adding Natural Oils, Foods, Organic Materials, Fibers, and Nanocomposites in the PLA, and Applications in 3D Printing. Dalam *Engineering Principles For Food Processing Technology and Product Realization* (hlm. 87–110). <https://doi.org/10.1201/9781032713922-5>
- Schön, J. H. (2015). *Density* (Vol. 65, hlm. 109–118). <https://doi.org/10.1016/B978-0-08-100404-3.00004-4>
- Shahroodi, Z., Momeni, V., Moshkriz, A., Rajabifar, N., & Darvishi, R. (2025). Mechanical and Morphological Perspectives on PLA-Based Thermoplastic Vulcanizates (TPVs): A Brief Review. *Macromolecular Materials and Engineering*, 310(2). <https://doi.org/10.1002/mame.202400209>
- Srivastava, A., Bhati, P., Singh, S., Agrawal, M., Kumari, N., Vashisth, P., Chauhan, P., & Bhatnagar, N. (2024). A review on polylactic acid-based blends/composites and the role of compatibilizers in biomedical engineering applications. *Polymer Engineering and Science*, 64(3), 1003–1044. <https://doi.org/10.1002/pen.26626>
- Srivastava, A., Jain, A., Rajput, S., Om Singh, H., Chandra Kandpal, B., Yadav, M., Varshney, S., & Johri, N. (2021). *Structural and FEM analysis of heat treatment effects on mild steel*. 46, 11064–11071. <https://doi.org/10.1016/j.matpr.2021.02.204>
- Stornelli, G., & Di Schino, A. (2024). Heat Treatment of Metals. Dalam *Applied Sciences* (Vol. 14, Nomor 19, hlm. 8683). MDPI.
- Taib, N. A. A. B., Rahman, M. R., Huda, D., Kuok, K. K., Hamdan, S., Bakri, M. K. Bin, Julaihi, M. R. M. Bin, & Khan, A. (2023). A review on poly lactic acid (PLA) as a biodegradable polymer. Dalam *Polymer Bulletin* (Vol. 80, Nomor 2). Springer Berlin Heidelberg. <https://doi.org/10.1007/s00289-022-04160-y>
- Tiuc, A. E., Vasile, O., Vermesan, H., & Andrei, P. M. (2018). Sound absorbing insulating composites based on polyurethane foam and waste materials. *Materiale Plastice*, 55(3), 419–422. <https://doi.org/10.37358/mp.18.3.5041>
- Ulfah, M., & Syafri, R. (2023). *Analisis of mechanical properties of AISI 4140 with heat treatment tempering*. 2691. <https://doi.org/10.1063/5.0116093>
- Utomo, F. B., Dwisetoyo, B., Hermawanto, D., Putri, C. C., Prasasti, N. R., Rusjadi, D., & Palupi, M. R. (2022). *Comparison of Sound Transmission Loss on Difference Types Wall/Partition*. 2664. <https://doi.org/10.1063/5.0108038>

- Vieira, T., Lundberg, J., & Eriksson, O. (2020). Evaluation of uncertainty on Shore hardness measurements of tyre treads and implications to tyre/road noise measurements with the Close Proximity method. *Measurement: Journal of the International Measurement Confederation*, 162. <https://doi.org/10.1016/j.measurement.2020.107882>
- Wu, Y., Gao, X., Wu, J., Zhou, T., Nguyen, T. T., & Wang, Y. (2023). Biodegradable Polylactic Acid and Its Composites: Characteristics, Processing, and Sustainable Applications in Sports. *Polymers*, 15(14). <https://doi.org/10.3390/polym15143096>
- Xu, G., Zhang, J., & Li, S. (2020). *Scanning electron microscope observation and analysis of athletes' hair in martial arts*. 29(2), 997–1005. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85082024744&partnerID=40&md5=90849743e331d626bb6f87b85e22f2fc>
- Yang, R., Wang, D., Li, H., He, Y., Zheng, X., Yuan, M., & Yuan, M. (2019). Preparation and Characterization of *Bletilla striata* Polysaccharide/Polylactic Acid Composite. *Molecules*, 24(11). <https://doi.org/10.3390/molecules24112104>
- Yang, Y., Chen, Z., Wu, C., Chen, Z., Guan, S., Li, Y., & Bao, S. (2017). Effect of the number and stacking sequence of membranes in glass fiber felt composite structure on acoustic properties. *Fibers and Polymers*, 18(1), 182–189. <https://doi.org/10.1007/s12221-017-6333-6>
- Yoshida, A., Kaburagi, Y., & Hishiyama, Y. (2016). *Scanning Electron Microscopy* (hlm. 71–93). <https://doi.org/10.1016/B978-0-12-805256-3.00005-2>
- Zahmi, S. Al, Alhammadi, S., Elhassan, A., & Ahmed, W. (2022). Carbon Fiber/PLA Recycled Composite. *Polymers*, 14(11). <https://doi.org/10.3390/polym14112194>