

DAFTAR PUSTAKA

- Antoniac, I., Popescu, D., Zapciu, A., Antoniac, A., Miculescu, F., & Moldovan, H. (2019). *Magnesium filled polylactic acid (PLA) material for filament based 3D printing. Materials*. <https://doi.org/10.3390/ma12050719>
- Arifvianto, B., Leeflang, M. A., & Zhou, J. (2017). *Diametral compression behavior of biomedical titanium scaffolds with open, interconnected pores prepared with the space holder method. Journal of the Mechanical Behavior of Biomedical Materials*, 68(December 2016), 144–154. <https://doi.org/10.1016/j.jmbbm.2017.01.046>
- Asadi, H., Rostamizadeh, K., Salari, D., & Hamidi, M. (2011). *Preparation of biodegradable nanoparticles of tri-block PLA-PEG-PLA copolymer and determination of factors controlling the particle size using artificial neural network. Journal of Microencapsulation*, 28 (5), 406-416. <https://doi.org/10.3109/02652048.2011.576784>
- Anwer, M. A. S., Naguib, H. E., Celzard, A., & Fierro, V. (2014). *Development and characterization of PLA-based bio composites. ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)*. <https://doi.org/10.1115/IMECE2014-39261>
- Anwer, M. A. S., Naguib, H. E., Celzard, A., & Fierro, V. (2015). *Comparison of the thermal, dynamic mechanical and morphological properties of PLA-Lignin & PLA-Tannin particulate green composites. Composites Part B: Engineering*. <https://doi.org/10.1016/j.compositesb.2015.08.028>
- Anwer, M. A. S., & Naguib, H. E. (2016). *Study on the morphological, dynamic mechanical and thermal properties of PLA carbon nanofibre composites. Composites Part B: Engineering*. <https://doi.org/10.1016/j.compositesb.2016.01.039>
- Balani, K., Verma, V., Agarwal, A., & Narayan, R. (2015). *BIOSURFACES: A Materials Science and Engineering Perspective*. Hoboken, New Jersey.: John Wiley & Sons, Inc.
- Bijarimi, M., Ahmad, S., Rasid, R., Khushairi, M. A., & Zakir, M. (2016). *Poly(lactic acid)/Poly(ethylene glycol) blends: Mechanical, thermal and morphological properties. AIP Conference Proceedings*, 1727(April 2016). <https://doi.org/10.1063/1.4945957>
- Calleja FJB (1985) *Microhardness relating to crystalline polymers*. Adv Polym Sci. https://doi.org/10.1007/3-540-13779-3_19

Callister, W.D. 2006. *Materials Science and Engineering: An Introdusction*. John Wiley & Sons, Inc.

Ceregatti, T., Pecharki, P., Pachekoski, W. M., Becker, D., & Dalmolin, C. (2017).

Electrical and thermal properties of PLA/CNT composite films. Revista Materia.

<https://doi.org/10.1590/S1517-707620170003.0197>

Danafar, H., Rostamizadeh, K., Davaran, S., & Hamidi, M. (2014). *PLA-PEG-PLA copolymer-based polymersomes as nanocarriers for delivery of hydrophilic and hydrophobic drugs: Preparation and evaluation with atorvastatin and lisinopril*. *Drug Development and Industrial Pharmacy*.

<https://doi.org/10.3109/03639045.2013.828223>

de Carvalho, J. G., Zanini, N. C., Claro, A. M., do Amaral, N. C., Barud, H. S., & Mulinari, D. R. (2021). *Composite filaments OF PHBV reinforced with ZrO₂-nH₂O particles for 3D printing*. *Polymer Bulletin*, (0123456789).

<https://doi.org/10.1007/s00289-021-03610-3>

Eliyana, A., & Winata, T. (2017). Karakterisasi FTIR pada Studi Awal Penumbuhan CNT dengan Prekursor Nanokatalis Ag dengan Metode HWC-VHF-PECVD. *Jurnal Fisika Dan Aplikasinya*, 13(2), 39. <https://doi.org/10.12962/j24604682.v13i2.2155>

Fafenrot, S. et al. (2017) ‘*Three-dimensional (3D) printing of polymer-metal hybrid materials by fused deposition modeling*’, *Materials*, 10(10). doi: 10.3390/ma10101199.

Gibson, R.F. 1994. *Principles of Composite Material Mechanics*. New York: Mc GrawHill

Groover, M. (2010). *Fundamentals of Modern Manufacturing Materials, Processes and Systems*. John Wiley & Sons.

Hagen, R. (2016) ‘PLA (Polylactic Acid)’, *Reference Module in Materials Science and Materials Engineering*, (April 2015), pp. 1–7. doi: 10.1016/b978-0-12-803581-8.01530-7.

Indra Mawardi dan Hasrin Lubis. 2018. *Proses Manufaktur Plastik & Komposit*. Yogyakarta: ANDI

Li, D., Jiang, Y., Lv, S., Liu, X., Gu, J., Chen, Q., & Zhang, Y. (2018). *Preparation of plasticized poly (lactic acid) and its influence on the properties of composite materials*. *PLoS ONE*, 13(3), 1–15. <https://doi.org/10.1371/journal.pone.0193520>

Li, W., Li, R., Li, C., Chen, Z.-R., & Zhang, L. (2015). *Mechanical Properties of Surface-Modified Ultra-High Molecular Weight Polyethylene Fiber Reinforced Natural Rubber Composites*. *Polymer Composites*. <https://doi.org/10.1002/pc.23685>

Liu, W., Wu, N. and Pochiraju, K. (2018) ‘*Shape recovery characteristics of SiC/C/PLA*

composite filaments and 3D printed parts, *Composites Part A: Applied Science and Manufacturing*, 108(February), pp. 1–11. doi:
10.1016/j.compositesa.2018.02.017.

Livia Gunawan. (2019). Pengamatan kekuatan tarik polimer *polylactic acid* dengan serbuk *nanotube* karbon menggunakan metode *airflow ejection* pada mesin 3d printer. Skripsi. Universitas Gadjah Mada. Yogyakarta.

Maiza, M., Benaniba, M. T., & Massardier-Nageotte, V. (2016). *Plasticizing effects of citrate esters on properties of poly(lactic acid)*. *Journal of Polymer Engineering*, 36(4), 371–380. <https://doi.org/10.1515/polyeng-2015-0140>

Mark, H. s (2005). *Encyclopedia Of Polymer Science Technology*. Amerika: John Wiley & Sons, Inc.

Mirón, V. et al. (2017). *Manufacturing and characterization of 3D printer filamen using tailoring materials*. *Procedia Manufacturing*. Elsevier B.V., 13, pp. 888–894. doi:
10.1016/j.promfg.2017.09.151

Mount, E. M. (2017). *Extrusion Processes*. In *Applied Plastics Engineering Handbook: Processing, Materials, and Applications: Second Edition*.
<https://doi.org/10.1016/B978-0-323-39040-8.00012-2>

Parupelli, S. K., & Desai, S. (2019). *A Comprehensive Review of Additive Manufacturing (3D Printing): Processes, Applications and Future Potential*. *American Journal of Applied Sciences*.
<https://doi.org/10.3844/ajassp.2019.244.272>

Pratap B, Gupta RK, Denis L, Goswami D (2020) *Evaluation of polymerization shrinkage and vickers hardness for restorative dental composites*. *Mater Today Proc* 21:1563–1565. <https://doi.org/10.1016/j.matpr.2019.11.090>

Ramadhan, A. I., Diniardi, E., & Daroji, M. (2017). Analisa Penyusutan Produk Plastik di Proses *Injection Molding* Menggunakan Media Pendingin *Cooling Tower* dan Udara dengan Material *Polypropylene*. *Jrst: Jurnal Riset Sains Dan Teknologi*, 1(2), 65. <https://doi.org/10.30595/jrst.v1i2.1577>

Ramrakhiani M, Pal D, Murty TS (1979) *Micro-indentation hardness studies on human bones*. *Cell Tissues Organs* 103:358–362

Ren, F., Li, Z., Xu, L., Sun, Z., Ren, P., Yan, D., & Li, Z. (2018). *Large-scale preparation of segregated PLA/carbon nanotube composite with high efficientelectromagnetic interference shielding and favourable mechanical properties*. *Composites Part B: Engineering*. <https://doi.org/10.1016/j.compositesb.2018.09.030>

Roy, R. K. (2010). *A PRIMER ON THE TAGUCHI METHOD* (2 ed.). Michigan, USA: SME.

Shahrubudin, N., Lee, T. C. and Ramlan, R. (2019) 'An overview on 3D printing technology: Technological, materials, and applications', *Procedia Manufacturing*, 35, pp. 1286–1296. doi: 10.1016/j.promfg.2019.06.089.

Solechan, S. R. (2016). Karakteristik filamen biodegradasi print 3d untuk implan plate an sekrup tulang femur dengan metode *screw extrusion* dari material pcl, pla pati ketela dan *hydroxyapatite bovine*. Prosiding SNATIF, 3.

Tang, H., Wrobel, L. C., & Fan, Z. (2003). *Fluid flow aspects of twin-screw extruder process: Numerical simulations of TSE rheomixing. In Modelling and Simulation in Materials Science and Engineering*. <https://doi.org/10.1088/0965-0393/11/5/305>

Torres, J., Cotelo, J., Karl, J., & Gordon, A. P. (2015). *Mechanical property optimization of FDM PLA in shear with multiple objectives*. JOM. <https://doi.org/10.1007/s11837-015-1367-y>

Wang, L., Qiu, J., Sakai, E., & Wei, X. (2016). *The relationship between microstructure and mechanical properties of carbon nanotubes/polylactic acid nanocomposites prepared by twin-screw extrusion. Composites Part A: Applied Science and Manufacturing*. <https://doi.org/10.1016/j.compositesa.2015.12.016>

Wisam H. Hoidy, Mansor B. Ahmad, Emad A. Jaffar Al-Mulla and Nor Azowa Bt Ibrahim, 2010. *Preparation and Characterization of Poly(lactic Acid)/Polycaprolactone Clay Nanocomposites*. *Journal of Applied Sciences*, 10: 97-106. doi: 10.3923/jas.2010.97.106

Xanthos, M. (2005). *Polymers and Polymer Composites. In Functional Fillers for Plastics*. <https://doi.org/10.1002/3527605096.ch1>

Yuniarto, K., Purwanto, Y. A., Purwanto, S., Welt, B. A., Purwadaria, H. K., & Sunarti, T. C. (2016). *Infrared and Raman studies on polylactide acid and polyethylene glycol-400 blend. AIP Conference Proceedings*, 1725. <https://doi.org/10.1063/1.4945555>

Zhao, H., Liu, Z., Park, S., Kim, S. H., Kim, J. H., & Piao, L. (2012). *Preparation and characterization of PEG/PLA multiblock and triblock copolymer. Bulletin of the Korean Chemical Society*, 33(5), 1638–1642. <https://doi.org/10.5012/bkcs.2012.33.5.1638>

Zhang, J., Wang, S., Qiao, Y., & Li, Q. (2016). *Effect of morphology designing on the structure and properties of PLA/PEG/ABS blends. Colloid and Polymer Science*,

294(11), 1779–1787. <https://doi.org/10.1007/s00396-016-3940-5>

Zhou, Y., Lei, L., Yang, B., Li, J., & Ren, J. (2018). *Preparation and characterization of polylactic acid (PLA) carbon nanotube nanocomposites. Polymer Testing.*
<https://doi.org/10.1016/j.polymertesting.2018.03.04>