

DAFTAR PUSTAKA

- Abitbol, T. *et al.* (2016) 'Nanocellulose, a tiny fiber with huge applications', *Current Opinion in Biotechnology*, 39, pp. 76–88. doi:10.1016/j.copbio.2016.01.002.
- Ahmad, N.D. *et al.* (2023) 'Preparation and properties of cellulose nanocrystals-reinforced poly (lactic acid) composite filaments for 3D printing applications', *Results in Engineering*, 17, p. 100842. doi:10.1016/j.rineng.2022.100842.
- Ali, A., Chiang, Y.W. and Santos, R.M. (2022) 'X-ray diffraction techniques for mineral characterization: A review for engineers of the fundamentals, applications, and Research Directions', *Minerals*, 12(2), p. 205. doi:10.3390/min12020205.
- Ali, E. and El-Harbawi, M. (2018) 'Optimal Inflammable Operation Conditions for maleic anhydride production by butane oxidation in fixed bed reactors', *Chemical Papers*, 72(9), pp. 2301–2314. doi:10.1007/s11696-018-0444-4.
- An, S. and Ma, X. (2017) 'Properties and structure of poly(3-hydroxybutyrate-co-4-hydroxybutyrate)/wood fiber biodegradable composites modified with maleic anhydride', *Industrial Crops and Products*, 109, pp. 882–888. doi:10.1016/j.indcrop.2017.09.042.
- Bacakova, L. *et al.* (2019) 'Versatile application of nanocellulose: From industry to skin tissue engineering and wound healing', *Nanomaterials*, 9(2), p. 164. doi:10.3390/nano9020164.
- Bandyopadhyay, A. and Bose, S. (2020) *Additive Manufacturing Second Edition*. New York: CRC Press.
- Callister, W.D. (2007) *Materials science and engineering an introduction*. New York: John Wiley & Sons, Inc.
- Cano-Vicent, A. *et al.* (2021) 'Fused deposition modelling: Current status, methodology, applications and future prospects', *Additive Manufacturing*, 47, p. 102378. doi:10.1016/j.addma.2021.102378.
- Casamento, F. *et al.* (2023) 'Development of polypropylene-based composites through fused filament fabrication: The effect of carbon-based fillers', *Composites Part A: Applied Science and Manufacturing*, 164, p. 107308. doi:10.1016/j.compositesa.2022.107308.

- Del Castillo, P.C. *et al.* (2022) ‘Structure and photocatalytic activity of maleic anhydride-functionalized tio2 nanoparticles by a simple method’, *Sustainable Environment Research*, 32(1). doi:10.1186/s42834-022-00116-z.
- Drazic, A. *et al.* (2016) ‘The world of protein acetylation’, *Biochimica et Biophysica Acta (BBA) - Proteins and Proteomics*, 1864(10), pp. 1372–1401. doi:10.1016/j.bbapap.2016.06.007.
- Duan, L. *et al.* (2022) ‘A simultaneous strategy for the preparation of acetylation modified cellulose nanofiber/polypropylene composites’, *Carbohydrate Polymers*, 277, p. 118744. doi:10.1016/j.carbpol.2021.118744.
- Dufresne, A. (2013) ‘Nanocellulose: A new ageless bionanomaterial’, *Materials Today*, 16(6), pp. 220–227. doi:10.1016/j.mattod.2013.06.004.
- Dul, S., Fambri, L. and Pegoretti, A. (2018) ‘Filaments production and fused deposition modelling of ABS/carbon nanotubes composites’, *Nanomaterials*, 8(1), p. 49. doi:10.3390/nano8010049.
- Eyley, S. and Thielemans, W. (2014) ‘Surface modification of cellulose nanocrystals’, *Nanoscale*, 6(14), pp. 7764–7779. doi:10.1039/c4nr01756k.
- Gibson, R.F. (2016) *Principles of Composite Material Mechanics*. Boca Raton, Florida: CRC Press, Taylor & Francis Group.
- He, H. *et al.* (2021) ‘Recycled Polyethylene/polyethylene-ethylene-1-octene-maleic anhydride composite with improved mechanical properties’, *Journal of Applied Polymer Science*, 139(8). doi:10.1002/app.51694.
- Ioelovich, M.Ya. and Veveris, G.P. (1987) ‘Determination of Cellulose Crystallinity by X-ray Diffraction Method’, *J. Wood Chemistry*, 5, pp. 72–80. doi:<https://www.academia.edu/21277562>.
- Jonoobi, M. *et al.* (2010) ‘Mechanical properties of cellulose nanofiber (CNF) reinforced polylactic acid (PLA) prepared by twin screw extrusion’, *Composites Science and Technology*, 70(12), pp. 1742–1747. doi:10.1016/j.compscitech.2010.07.005.
- Kargarzadeh, H. *et al.* (2017) *Handbook of Nanocellulose and cellulose nanocomposites*. Weinheim, Germany: Wiley-VCH Verlag GmbH & Co.
- Klemm, D. *et al.* (2005) ‘Cellulose: Fascinating biopolymer and sustainable raw material’, *Angewandte Chemie International Edition*, 44(22), pp. 3358–3393. doi:10.1002/anie.200460587.

- Kusmono and Aji, P.P. (2021) 'Fabrication and tensile properties of ABS/cellulose nanocrystal nanocomposite filaments for 3D printing', *PROCEEDINGS OF THE 13TH AUN/SEED-NET REGIONAL CONFERENCE ON MATERIALS (RCM 2020) AND THE 1ST INTERNATIONAL CONFERENCE ON MATERIALS ENGINEERING AND MANUFACTURING (ICMEM 2020)*, 2338(1). doi:10.1063/5.0066895.
- Lee, M. (2021) *X-ray diffraction for materials research: From fundamentals to applications*. Oakville, Canada: AAP, Apple Academic Press.
- Lin, N. *et al.* (2011) 'Surface acetylation of cellulose nanocrystal and its reinforcing function in poly(lactic acid)', *Carbohydrate Polymers*, 83(4), pp. 1834–1842. doi:10.1016/j.carbpol.2010.10.047.
- Macherey, A.C. and Dansette, P.M. (2003) 'Chemical mechanisms of toxicity: Basic knowledge for designing safer drugs', *The Practice of Medicinal Chemistry*, pp. 545–560. doi:10.1016/b978-012744481-9/50036-2.
- Maddah, H.A. (2016) 'Polypropylene as a Promising Plastic: A Review', *American Journal of Polymer Science*, 6(1), pp. 1–11. doi:10.5923/j.ajps.20160601.01.
- Maier, C. and Calafut, T. (1998) *Polypropylene: The definitive user's guide and databook*. Norwich, New York: Plastics Design Library.
- Mohamed, M.A. *et al.* (2017) 'Fourier transform infrared (FT-IR) spectroscopy', *Membrane Characterization*, pp. 3–29. doi:10.1016/b978-0-444-63776-5.00001-2.
- Moon, R.J. *et al.* (2011) 'Cellulose nanomaterials review: Structure, properties and nanocomposites', *Chemical Society Reviews*, 40(7), pp. 3941–3944. doi:10.1039/c0cs00108b.
- Mukherjee, S. and Gowen, A. (2015) 'A review of recent trends in polymer characterization using non-destructive vibrational spectroscopic modalities and Chemical Imaging', *Analytica Chimica Acta*, 895, pp. 12–34. doi:10.1016/j.aca.2015.09.006.
- Nascimento, D.M. *et al.* (2018) 'Nanocellulose nanocomposite hydrogels: Technological and environmental issues', *Green Chemistry*, 20(11), pp. 2428–2448. doi:10.1039/c8gc00205c.
- Naz, S., Ali, J.S. and Zia, M. (2019) 'Nanocellulose Isolation Characterization and Applications: A journey from non-remedial to biomedical claims', *Bio-*

Design and Manufacturing, 2(3), pp. 187–212. doi:10.1007/s42242-019-00049-4.

Phanthong, P. *et al.* (2018) ‘Nanocellulose: Extraction and application’, *Carbon Resources Conversion*, 1(1), pp. 32–43. doi:10.1016/j.crcon.2018.05.004.

Rahman, R. and Zhafer Firdaus Syed Putra, S. (2019) ‘Tensile properties of natural and synthetic fiber-reinforced polymer composites’, *Mechanical and Physical Testing of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*, pp. 81–102. doi:10.1016/b978-0-08-102292-4.00005-9.

Rana, A.K., Frollini, E. and Thakur, V.K. (2021) ‘Cellulose nanocrystals: Pretreatments, preparation strategies, and surface functionalization’, *International Journal of Biological Macromolecules*, 182, pp. 1554–1581. doi:10.1016/j.ijbiomac.2021.05.119.

Rotaru, R. *et al.* (2018) ‘Ferromagnetic iron oxide–cellulose nanocomposites prepared by ultrasonication’, *Polymer Chemistry*, 9(7), pp. 860–868. doi:10.1039/c7py01587a.

Saba, N., Jawaidd, M. and Sultan, M.T.H. (2019) ‘An overview of mechanical and physical testing of composite materials’, *Mechanical and Physical Testing of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*, pp. 1–12. doi:10.1016/b978-0-08-102292-4.00001-1.

Salimi, S. *et al.* (2019) ‘Production of nanocellulose and its applications in drug delivery: A critical review’, *ACS Sustainable Chemistry & Engineering*, 7(19), pp. 15800–15827. doi:10.1021/acssuschemeng.9b02744.

Sanjeevi, S. *et al.* (2021) ‘Effects of water absorption on the mechanical properties of hybrid natural fibre/phenol formaldehyde composites’, *Scientific Reports*, 11(1). doi:10.1038/s41598-021-92457-9.

Skoog, D.A. and West, D.M. (1980) *Principles of Instrumental Analysis*. Philadelphia: Saunders College.

Smith, B.C. (2011) *Fundamentals of fourier transform infrared spectroscopy*. Boca Raton, Florida: CRC Press.

Sukmawan, R., Kusmono and Wildan, M.W. (2023) ‘Optimizing acetic anhydride amount for improved properties of acetylated cellulose nanofibers from sisal fibers using a high-speed blender’, *ACS Omega*, 8(30), pp. 27117–27126. doi:10.1021/acsomega.3c02178.

- Trache, D. *et al.* (2017) ‘Recent progress in cellulose nanocrystals: Sources and production’, *Nanoscale*, 9(5), pp. 1763–1786. doi:10.1039/c6nr09494e.
- Trache, D. *et al.* (2020) ‘Nanocellulose: From Fundamentals to Advanced Applications’, *Frontiers in Chemistry*, 8. doi:10.3389/fchem.2020.00392.
- Trivedi, B.C. and Culbertson, B.M. (1982) *Maleic anhydride*. New York: Plenum Press.
- Veerasingham, S. *et al.* (2020) ‘Contributions of Fourier transform infrared spectroscopy in Microplastic Pollution Research: A Review’, *Critical Reviews in Environmental Science and Technology*, 51(22), pp. 2681–2743. doi:10.1080/10643389.2020.1807450.
- Wong, K.V. and Hernandez, A. (2012) ‘A review of Additive Manufacturing’, *ISRN Mechanical Engineering*, 2012, pp. 1–10. doi:10.5402/2012/208760.
- Xu, J. *et al.* (2020) ‘Acetylated cellulose nanocrystals with high-crystallinity obtained by one-step reaction from the traditional acetylation of cellulose’, *Carbohydrate Polymers*, 229, p. 115553. doi:10.1016/j.carbpol.2019.115553.
- Yang, X. *et al.* (2019) ‘Electrospun and photocrosslinked gelatin/dextran–maleic anhydride composite fibers for tissue engineering’, *European Polymer Journal*, 113, pp. 142–147. doi:10.1016/j.eurpolymj.2019.01.059.
- Zhang, L. *et al.* (2017) ‘Effect of MAH-g-PLA on the Properties of Wood Fiber/Poly(lactic Acid Composites)’, *Polymers*, 9(11), p. 591. doi:10.3390/polym9110591.
- Zulkifli, N.I. *et al.* (2015) ‘Mechanical properties and failure modes of recycled polypropylene/microcrystalline cellulose composites’, *Materials & Design*, 69, pp. 114–123. doi:10.1016/j.matdes.2014.12.053.