

DAFTAR PUSTAKA

- [1] Q. Wu, W. S. Miao, Y. Du Zhang, H. J. Gao, and D. Hui, "Mechanical properties of nanomaterials: A review," *Nanotechnol. Rev.*, vol. 9, no. 1, pp. 259–273, 2020, doi: 10.1515/ntrev-2020-0021.
- [2] M. Aslam, M. A. Kalyar, and Z. A. Raza, "Polyvinyl alcohol: A review of research status and use of polyvinyl alcohol based nanocomposites," *Polym. Eng. Sci.*, vol. 58, no. 12, pp. 2119–2132, 2018, doi: 10.1002/pen.24855.
- [3] D. Rahmadiawan *et al.*, "Effect of post-heat treatment on the UV transmittance, hydrophobicity, and tensile properties of PVA/Uncaria gambir extract blend films," *Heliyon*, 2024.
- [4] D. A. Nugroho and P. Aji, "Characterization of Nata de Coco Produced by Fermentation of Immobilized *Acetobacter xylinum*", *Agric. Agric. Sci. Procedia*, vol. 3, pp. 278–282, 2015, doi: 10.1016/j.aaspro.2015.01.053.
- [5] M. Maryam, D. Rahmad, and Y. Yunizurwan, "Sintesis Mikro Selulosa Bakteri Sebagai Penguat (Reinforcement) Pada Komposit Bioplastik Dengan Matriks PVA (Poli Vinil Alkohol)," *J. Kim. dan Kemasan*, vol. 41, no. 2, p. 110, 2019, doi: 10.24817/jkk.v41i2.4055.
- [6] M. Aditya and P. R. Ariyanti, "Manfaat Gambir (*Uncaria gambir* Roxb) sebagai Antioksidan," *Majority*, vol. 5, no. 3, pp. 129–133, 2016.
- [7] D. Rahmadiawan *et al.*, "Enhanced UV blocking, tensile and thermal properties of bendable TEMPO-oxidized bacterial cellulose powder-based films immersed in PVA/Uncaria gambir/ZnO solution," *J. Mater. Res. Technol.*, vol. 26, pp. 5566–5575, 2023, doi: 10.1016/j.jmrt.2023.08.267.
- [8] H. Abrial *et al.*, "Effect of ultrasonication duration of polyvinyl alcohol (PVA) gel on characterizations of PVA film," *J. Mater. Res. Technol.*, vol. 9, no. 2, pp. 2477–2486, 2020, doi: 10.1016/j.jmrt.2019.12.078.

- [9] B. A. Harsojuwono and I. W. Arnata, *Teknologi Polimer Industri Pertanian*. Malang, Indonesia: Intimedia, 2017.
- [10] S. H. Othman, "Bio-nanocomposite Materials for Food Packaging Applications: Types of Biopolymer and Nano-sized Filler," *Agric. Agric. Sci. Procedia*, vol. 2, pp. 296–303, 2014, doi: 10.1016/j.aaspro.2014.11.042.
- [11] A. L. Fitri *et al.*, "Pengaruh Perbedaan Konsentrasi Pva (Polivinil Alkohol) Dan Tepung Buah Mangrove Bruguiera Gymnorrhiza Terhadap Karakteristik Sifat Fisika Hidrogel The Effect Of Different Concentrations Of Pva (Polyvinyl Alcohol) And Mangrove Fruit Flour Bruguiera gym," no. February 2023.
- [12] R. E. Rahayu T, "Sifat Mekanik Selulosa Bakterial dari Air Kelapa dengan Penambahan Kitosan," *J. Phys. A Math. Theor.*, vol. 44, no. 8, pp. 1689–1699, 2011, doi: 10.1088/1751-8113/44/8/085201.
- [13] T. Tsuchida and F. Yoshinaga, "Production of bacterial cellulose by agitation culture systems," *Pure Appl. Chem.*, vol. 69, no. 11, pp. 2453–2458, 1997, doi: 10.1351/pac199769112453.
- [14] D. Ciechańska, "Multifunctional bacterial cellulose/chitosan composite materials for medical applications," *Fibres Text. East. Eur.*, vol. 12, no. 4, pp. 69–72, 2004.
- [15] H. Abral, V. Lawrensus, D. Handayani, and E. Sugiarti, "Preparation of nano-sized particles from bacterial cellulose using ultrasonication and their characterization," *Carbohydr. Polym.*, vol. 191, no. February, pp. 161–167, 2018, doi: 10.1016/j.carbpol.2018.03.026.
- [16] Sabarni, "Teknik Pembuatan Gambir (*Uncaria gambir* Roxb) Secara Tradisional," *J. Islam. Sci. Technol.*, vol. 1, no. 1, pp. 105–112, 2015, [Online]. Available: www.jurnal.ar-raniry.com/index.php/elkawnie

- [17] R. D. Salindeho, J. Soukota, and R. Poeng, "Pemodelan Pengujian Tarik untuk Menganalisis Sifat Mekanik Material," Manado, Indonesia: Universitas Sam Ratulangi, 2013.2, no. 2, pp. 88–98, 2018.

