

DAFTAR PUSTAKA

- [1] A. Hartono, "Pengaruh Penambahan Selulosa Bakteri Pada Matriks Polyvinyl Alcohol (PVA) dan Pati Ubi Kayu Terhadap Sifat Mekanik dan Serapan Uap Air," 2018.
- [2] Hairul Abral, Melati Krista Chairani, Muhammad Dinul Rizki, Melbi Mahardika, Dian Handayani, Eni Sugiarti, Ahmad Novi Muslimin, S.M. Sapuan, R.A. Ilyas. "Characterization of compressed bacterial cellulose nanopaper film after exposure to dry and humid conditions." *Journal of Materials Research and Technology* 11 (2021): 896-904.
- [3] *J. Mater. Chem. A*, 2013, 1, 578.
- [4] W. Hu, S. Chen, J. Yang, Z. Li, and H. Wang, "Functionalized bacterial cellulose derivatives and nanocomposites," *Carbohydrate Polymers*, vol. 101, pp. 1043–1060, 2014.
- [5] C. Huang, H. Ji, Y. Yang, B. Guo, and L. Luo, "ur na l P of," *Carbohydr. Polym.*, p. 115570, 2019, doi: 10.1016/j.carbpol.2019.115570.
- [6] Z. Zhan, Q. Song, Z. Zhou and C. Lu. Ultrastrong and conductive MXene/cellulose nanofiber films enhanced by hierarchical nano- architecture and interfacial interaction for flexible electromagnetic interference shielding. *J. Mater. Chem. C*, 2019, DOI: 10.1039/C9TC03309B.
- [7] Tanvir, A.; Sobolčiak, P.; Popelka, A.; Mrlik, M.; Spitalsky, Z.; Micusik, M.; Prokes, J.; Krupa, I. Electrically Conductive, Transparent Polymeric Nanocomposites Modified by 2D $Ti_3C_2T_x$ (MXene). *Polymers* 2019, 11, 1272. <https://doi.org/10.3390/polym11081272>.
- [8] Dall'Agnesse, Y.; Lukatskaya, M.R.; Cook, K.M.; Taberna, P.-L.; Gogotsi, Y.; Simon, P. High capacitance of surface-modified 2D titanium carbide in acidic electrolyte. *Electrochem. Commun.* 2014, 48, 118–122.
- [9] Naguib, M.; Mashtalir, O.; Carle, J.; Presser, V.; Lu, J.; Hultman, L.; Gogotsi, Y.; Barsoum, M.W. Two-Dimensional Transition Metal Carbides. *ACS Nano* 2012, 6, 1322–1331.
- [10] An, H.; Habib, T.; Shah, S.; Gao, H.; Radovic, M.; Green, M.J.; Lutkenhaus, J.L. Surface-agnostic highly stretchable and bendable conductive MXene multilayers. *Sci. Adv.* 2018, 4, eaaq0118.
- [11] Feng, Y.; Deng, Q.; Peng, C.; Hu, J.; Li, Y.; Wu, Q.; Xu, Z. An ultrahigh discharged energy density achieved in an inhomogeneous PVDF dielectric composite filled with 2D MXene nanosheets via interface engineering. *J. Mater. Chem. C* 2018, 6, 13283–13292.

- [12] William G. Haines *and* Richard H. Bube, "Effects of heat treatment on the optical and electrical properties of indium–tin oxide films", *Journal of Applied Physics* 49, 304-307 (1978) <https://doi.org/10.1063/1.324386>.
- [13] Hairul Abral, Jeri Arikxa, Melbi Mahardika, Dian Handayani, Ibtisamatul Aminah, Neny Sandrawati, Eni Sugiarti, Ahmad Novi Muslimin, Santi Dewi Rosanti, Effect of heat treatment on thermal resistance, transparency and antimicrobial activity of sonicated ginger cellulose film, *Carbohydrate Polymers*, Volume 240, 2020, 116287, ISSN 0144-8617, <https://doi.org/10.1016/j.carbpol.2020.116287>.
- [14] F. Vilaplana, E. Strömberg, and S. Karlsson, "Environmental and resource aspects of sustainable biocomposites," *Polym. Degrad. Stab.*, vol. 95, no. 11, pp. 2147–2161, 2010, doi: 10.1016/j.polymdegradstab.2010.07.016.
- [15] D. G. Callister, W. D., & Rethwisch, *Callister, W. D., & Rethwisch, D. G. (2007). Materials science and engineering: an introduction (Vol. 7, pp. 665-715). New York: John wiley & sons., 9th ed. New York, 2014.*
- [16] R. J. Moon, A. Martini, J. Nairn, J. Youngblood, A. Martini, and J. Nairn, *Chem Soc Rev Cellulose nanomaterials review : structure , properties and nanocomposites.* 2011.
- [17] F. . Gibson, *Principles of Composite Material Mechanis, International Edition.* New York: McGraw-Hill Inc, 1994.
- [18] M. Asrofi, H. Abral, A. Kasim, A. Pratoto, and M. Mahardika, "Isolation of Nanocellulose from Water Hyacinth Fiber (WHF) Produced via Digester-Sonication and Its Characterization," vol. 19, no. 8, pp. 1618–1625, 2018, doi: 10.1007/s12221-018-7953-1.
- [19] I. S. Nakagaito A.N, "Bacterial cellulose : the ultimate nano-scalar cellulose morphology for the production of high-strength composites," vol. 97, pp. 93–97, 2005, doi: 10.1007/s00339-004-2932-3.
- [20] N. Soykeabkaew, C. Sian, S. Gea, T. Nishino, and T. Peijs, "All-cellulose nanocomposites by surface selective dissolution of bacterial cellulose," *Cellulose*, vol. 16, no. 3, pp. 435–444, 2009, doi: 10.1007/s10570-009-9285-1.
- [21] Nishiyama, Yoshiharu; Langan, Paul; Chanzy, Henri (2002). "Crystal Structure and Hydrogen-Bonding System in Cellulose I β from Synchrotron X-ray and Neutron Fiber Diffraction". *J. Am. Chem. Soc.* 124 (31): 9074–82. doi:10.1021/ja0257319.
- [22] H. Suryanto, "Analisis struktur serat selulosa dari bakteri," *Pros. SNTT 2017 – Politek. Negeri Malang*, vol. 3, no. October, pp. 17–22, 2017.
- [23] H. Suryanto, A. S. Pahlevi, and U. Yanuhar, "Effect of bacterial cellulose reinforcement on morphology and tensile properties of starch-based biocomposite," *IOP Conference Series: Materials Science and Engineering*, vol. 1034, no. 1, p. 012167, 2021.
- [24] W. Lei, D. Jin, H. Liu, Z. Tong and H. Zhang, "An Overview of Bacterial

- Cellulose in Flexible Electrochemical Energy Storage", *ChemSusChem*, vol. 13, no. 15, pp. 3731-3753, 2020. Available: 10.1002/cssc.202001019.
- [25] Naguib, M.; Kurtoglu, M.; Presser, V.; Lu, J.; Niu, J.; Heon, M.; Hultman, L.; Gogotsi, Y.; Barsoum, M.W. Two-Dimensional Nanocrystals Produced by Exfoliation of Ti_3AlC_2 . *Adv. Mater.* 2011, 23, 4248–4253.
- [26] G. Song, R. Kang, L. Guo, Z. Ali, X. Chen, Z. Zhang, C. Yan, C. Lin, N. Jiang and J. Yu, "Highly Flexible Few-layer Ti_3C_2 MXene/Cellulose Nanofiber Heatspreader Films with Enhanced Thermal Conductivity", *New J. Chem.*, 2020, DOI: 10.1039/D0NJ00672F.
- [27] *Chem. Mater.* 2017, 29, 18, 7633–7644.
- [28] F. Shahzad, M. Alhabeab, C. B. Hatter, B. Anasori, S. M. Hong, C. M. Koo and Y. Gogotsi Electromagnetic interference shielding with 2D transition metal carbides (MXenes), *Science*, 2016, 353, 1137-1140.
- [29] M. I. Fitrianda, *Digital Digital Repository Repository Universitas Jember Jember Digital Digital Repository Repository Universitas Universitas Jember*. 2013.
- [30] B. Delmifiana and Astuti, "Pengaruh sonikasi terhadap struktur dan morfologi nanopartikel magnetik yang disintesis dengan metode kopresipitasi," *Jurnal Fisika Unand*, vol. 2, no. 3, 2013.
- [31] N. K. Sari and A. Muttaqin, "Pengaruh waktu sonikasi terhadap konduktivitas listrik zeolit berbahan abu dasar batubara menggunakan metode peleburan alkali hidrotermal," *Jurnal Fisika Unand*, vol. 5, no. 4, 2016.
- [32] D. Hidayat, R. Zulianto, B. M. Wibawa, and B. Y. Tumbelaka, "Pengembangan Pengukuran Sheet Resistance Film Tipis Menggunakan Metode Four Point Probe", *SENTER*, pp. 56–64, Jan. 2018.
- [33] S. A Halperin, The difference between surface resistance and surface resistivity, *EE: Evaluation Engineering*, 35 (6), 49-50 (1996).
- [34] M. Lay, J. A. Méndez, M. Delgado-Aguilar, K. N. Bun, and F. Vilaseca, "Strong and electrically conductive nanopaper from cellulose nanofibers and polypyrrole," *Carbohydr. Polym.*, vol. 152, pp. 361–369, 2016, doi: 10.1016/j.carbpol.2016.06.102.
- [35] Sulistiyana dan Ulfin, I., "Studi Pendahuluan Adsorpsi Kation Ca dan Mg (Penyebab Kسادahan) Menggunakan Selulosa Bakterial Nata de Coco Menggunakan Metode Batch", *Prosiding Skripsi Semester Genap, FMIPA ITS*, 2010.