

DAFTAR PUSTAKA

- [1] X. Zhao, K. Cornish, and Y. Vodovotz, “Narrowing the Gap for Bioplastic Use in Food Packaging: An Update,” *Environ. Sci. Technol.*, vol. 54, no. 8, pp. 4712–4732, 2020, doi: 10.1021/acs.est.9b03755.
- [2] J. G. Rosenboom, R. Langer, and G. Traverso, “Bioplastics for a circular economy,” *Nat. Rev. Mater.*, vol. 7, no. 2, pp. 117–137, 2022, doi: 10.1038/s41578-021-00407-8.
- [3] S. K. Das, A. Sathish, and J. Stanley, “Production of Biofuel and Bioplastic from Chlorella Pyrenoidosa,” *Mater. Today Proc.*, vol. 5, no. 8, pp. 16774–16781, 2018, doi: 10.1016/j.matpr.2018.06.020.
- [4] R. Reshmy *et al.*, “Bioplastic production from renewable lignocellulosic feedstocks: a review,” *Rev. Environ. Sci. Biotechnol.*, vol. 20, no. 1, pp. 167–187, 2021, doi: 10.1007/s11157-021-09565-1.
- [5] Q. Xia *et al.*, “A strong, biodegradable and

recyclable lignocellulosic bioplastic,” *Nat. Sustain.*, vol. 4, no. 7, pp. 627–635, 2021, doi: 10.1038/s41893-021-00702-w.

- [6] J. Holm, “Bio-plastic Production from Starch Potato Thesis,” *Centria Univ. Appl. Sci. Environ. Chem. Technol.*, no. March, 2020.
- [7] S. S. Sawant, B. K. Salunke, T. K. Tran, and B. S. Kim, “Lignocellulosic and marine biomass as resource for production of polyhydroxyalkanoates,” *Korean J. Chem. Eng.*, vol. 33, no. 5, pp. 1505–1513, 2016, doi: 10.1007/s11814-016-0019-4.
- [8] Y. Zhang, C. Rempel, and Q. Liu, “Thermoplastic Starch Processing and Characteristics-A Review,” *Crit. Rev. Food Sci. Nutr.*, vol. 54, no. 10, pp. 1353–1370, 2014, doi: 10.1080/10408398.2011.636156.
- [9] M. Zdanowicz, K. Sałasińska, K. Lewandowski, and K. Skórczewska, “Thermoplastic Starch/Ternary Deep Eutectic Solvent/Lignin Materials: Study of Physicochemical Properties and Fire Behavior,” *ACS Sustain. Chem. Eng.*,

vol. 10, no. 14, pp. 4579–4587, 2022, doi: 10.1021/acssuschemeng.1c08542.

- [10] A. M. Nafchi, M. Moradpour, M. Saeidi, and A. K. Alias, “Thermoplastic starches: Properties, challenges, and prospects,” *Starch/Staerke*, vol. 65, no. 1–2, pp. 61–72, 2013, doi: 10.1002/star.201200201.
- [11] Kementerian Pertanian, “Perkirakan Produksi Tebu RI,” *katadata.co.id*, 2021. .
- [12] Direktorat Jendral Perkebunan, “Produksi Tebu Menurut Provinsi di Indonesia,” *Www.Pertanian.Go.Id*, 2021. <https://www.pertanian.go.id/home/index.php?show=repo&fileNum=208>.
- [13] Risnawati and M. abdul wahid, “Pembuatan Bietanol sari Singkong Dan Ampas Tebu Secara Fermentasi Dengan Menggunakan Ragi Tape,” *J. Pendidik. Fis. DAN Terap.*, vol. 7, no. 1, 2019.
- [14] R. Pratiwi, D. Rahayu, and M. I. Barliana, “Pemanfaatan Selulosa Dari Limbah Jerami Padi (*Oryza sativa*) Sebagai Bahan Bioplastik,” *Indones. J. Pharm. Sci. Technol.*, vol. 3, no. 3, p.

83, 2016, doi: 10.15416/ijpst.v3i3.9406.

- [15] S. N. H. M. Azmin, N. A. B. M. Hayat, and M. S. M. Nor, “Development and characterization of food packaging bioplastic film from cocoa pod husk cellulose incorporated with sugarcane bagasse fibre,” *J. Bioresour. Bioprod.*, vol. 5, no. 4, pp. 248–255, 2020, doi: 10.1016/j.jobab.2020.10.003.
- [16] M. Samer *et al.*, “Bioplastics production from agricultural crop residues,” *Agric. Eng. Int. CIGR J.*, vol. 21, no. 3, pp. 190–194, 2019.
- [17] H. Kim, S. Lee, Y. Ahn, J. Lee, and W. Won, “Sustainable Production of Bioplastics from Lignocellulosic Biomass: Technoeconomic Analysis and Life-Cycle Assessment,” *ACS Sustain. Chem. Eng.*, vol. 8, no. 33, pp. 12419–12429, 2020, doi: 10.1021/acssuschemeng.0c02872.
- [18] C. Lei *et al.*, “Large-Scale Manufacture of Recyclable Bioplastics from Renewable Cellulosic Biomass Derived from Softwood Kraft Pulp,” *ACS Appl. Polym. Mater.*, vol. 4,

no. 2, pp. 1334–1343, 2022, doi: 10.1021/acsapm.1c01729.

- [19] X. Yan, D. Li, X. Ma, and J. Li, “Bioconversion of renewable lignocellulosic biomass into multicomponent substrate via pressurized hot water pretreatment for bioplastic polyhydroxyalkanoate accumulation,” *Bioresour. Technol.*, vol. 339, no. July, p. 125667, 2021, doi: 10.1016/j.biortech.2021.125667.
- [20] W. Schutyser, T. Renders, S. Van Den Bosch, S. F. Koelewijn, G. T. Beckham, and B. F. Sels, “Chemicals from lignin: An interplay of lignocellulose fractionation, depolymerisation, and upgrading,” *Chem. Soc. Rev.*, vol. 47, no. 3, pp. 852–908, 2018, doi: 10.1039/c7cs00566k.
- [21] K. Köse, M. Mavlan, and J. P. Youngblood, “Applications and impact of nanocellulose based adsorbents,” *Cellulose*, vol. 27, no. 6, pp. 2967–2990, 2020, doi: 10.1007/s10570-020-03011-1.
- [22] R. Mishra, “Materials Chemistry and the Futurist Eco-friendly Applications of Nanocellulose: Status and prospect,” *J. Saudi Chem. Soc.*, vol.

22, Feb. 2018, doi: 10.1016/j.jscs.2018.02.005.

- [23] J. Yang, Y. C. Ching, and C. H. Chuah, “Applications of Lignocellulosic Fibers and Lignin in Bioplastics: A Review,” pp. 1–26, 2019.
- [24] S.-T. Yang, *Bioprocessing for Value-Added Products from Renewable Resources*. 2007.
- [25] Y. Liu, J. B. Friesen, J. B. McAlpine, D. C. Lankin, S. N. Chen, and G. F. Pauli, “Natural Deep Eutectic Solvents: Properties, Applications, and Perspectives,” *J. Nat. Prod.*, vol. 81, no. 3, pp. 679–690, 2018, doi: 10.1021/acs.jnatprod.7b00945.
- [26] E. L. Smith, A. P. Abbott, and K. S. Ryder, “Deep Eutectic Solvents (DESs) and Their Applications.pdf,” *Chem. Rev.*, vol. 114, pp. 11060–11082, 2014.
- [27] J. Płotka-Wasylka, M. de la Guardia, V. Andruch, and M. Vilková, “Deep eutectic solvents vs ionic liquids: Similarities and differences,” *Microchem. J.*, vol. 159, no. July, 2020, doi: 10.1016/j.microc.2020.105539.

- [28] Y. Dai, J. van Spronsen, G. J. Witkamp, R. Verpoorte, and Y. H. Choi, “Natural deep eutectic solvents as new potential media for green technology,” *Anal. Chim. Acta*, vol. 766, pp. 61–68, 2013, doi: 10.1016/j.aca.2012.12.019.
- [29] J. T. Gorke, F. Srienc, and R. J. Kazlauskas, “Deep eutectic solvents for *Candida antarctica* lipase B-catalyzed reactions,” *ACS Symp. Ser.*, vol. 1038, pp. 169–180, 2010, doi: 10.1021/bk-2010-1038.ch014.
- [30] M. Simonic and F. Zemljic, “Production of bioplastic material from algal biomass,” *Chem. Ind. Chem. Eng. Q.*, vol. 27, no. 1, pp. 79–84, 2021, doi: 10.2298/ciceq191024026s.
- [31] A. Padinjakkara, A. Thankappan, F. G. S. Jr, and S. Thomas, *BIOPOLIMER AND BIOMATERIAL*. 2019.
- [32] Y. Liu *et al.*, “Tunable and functional deep eutectic solvents for lignocellulose valorization,” *Nat. Commun.*, vol. 12, no. 1, pp. 1–15, 2021, doi: 10.1038/s41467-021-25117-1.
- [33] B. B. Hansen *et al.*, “Deep Eutectic Solvents: A

Review of Fundamentals and Applications,” *Chem. Rev.*, vol. 121, no. 3, pp. 1232–1285, 2021, doi: 10.1021/acs.chemrev.0c00385.

- [34] S. S. Fatimah and M. Y. Firdaus, “Pelarut Deep Eutectic Etalin Sebagai Agen Pelindian Logam Perak dari Limbah Printed Circuit Boards (PCB),” *Chem. Isola*, vol. 1, no. 2, pp. 37–41, 2021.
- [35] M. Brodin, M. Vallejos, M. T. Opedal, M. C. Area, and G. Chinga-Carrasco, “Lignocellulosics as sustainable resources for production of bioplastics – A review,” *J. Clean. Prod.*, vol. 162, pp. 646–664, 2017, doi: 10.1016/j.jclepro.2017.05.209.
- [36] D. Merino and A. Athanassiou, “Alkaline hydrolysis of biomass as an alternative green method for bioplastics preparation: In situ cellulose nanofibrillation,” *Chem. Eng. J.*, vol. 454, no. 4, 2022, [Online]. Available: <https://www.ptonline.com/articles/how-to-get-better-mfi-results>.
- [37] G. Tedeschi *et al.*, “Multifunctional Bioplastics

Inspired by Wood Composition: Effect of Hydrolyzed Lignin Addition to Xylan-Cellulose Matrices,” *Biomacromolecules*, vol. 21, no. 2, pp. 910–920, 2020, doi: 10.1021/acs.biomac.9b01569.

- [38] X. Ma and J. Yu, “The plasticizers containing amide groups for thermoplastic starch,” *Carbohydr. Polym.*, vol. 57, pp. 197–203, Aug. 2004, doi: 10.1016/j.carbpol.2004.04.012.
- [39] H. Abral and J. Hartono, “Moisture absorption of starch based biocomposites reinforced with water hyacinth fibers,” *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 213, no. 1, pp. 3–7, 2017, doi: 10.1088/1757-899X/213/1/012035.
- [40] H. Judawisastra, R. D. R. Sitohang, L. Marta, and Mardiyati, “Water absorption and its effect on the tensile properties of tapioca starch/polyvinyl alcohol bioplastics,” *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 223, no. 1, 2017, doi: 10.1088/1757-899X/223/1/012066.