DAFTAR PUSTAKA

Abe, M. M., Martins, J. R., Sanvezzo, P. B., Macedo, J. V., Branciforti, M. C., Halley, P., Botaro, V. R., dan Brienzo, M., 2021, Advantages and Disadvantages of Bioplastics Production from Starch and Lignocellulosic Components. *Polymers*, *13*(15), 2484. https://doi.org/10.3390/polym13152484

Al-Amin, K., Kawsar, Md., Mamun, Md. T. R. B., dan Sahadat Hossain, Md., 2025, Fourier transform infrared spectroscopic technique for analysis of inorganic materials: a review. *Nanoscale Advances*, *7*(21), 6677–6702. https://doi.org/10.1039/D5NA00522A

Alsughayer, A., Elassar, A.-Z. A., Hasan, A. A., dan Al Sagheer, F., 2021, Antibiotic resistance and drug modification: Synthesis, characterization and bioactivity of newly modified potent ciprofloxacin derivatives. *Bioorganic Chemistry*, *108*, 104658. https://doi.org/10.1016/j.bioorg.2021.104658

Altam, A. A., Zhu, L., Huang, W., Huang, H., dan Yang, S., 2021, Polyelectrolyte complex beads of carboxymethylcellulose and chitosan: The controlled formation and improved properties. *Carbohydrate Polymer Technologies and Applications*, *2*, 100100. https://doi.org/10.1016/j.carpta.2021.100100

Barik, M., BhagyaRaj, G. V. S., Dash, K. K., dan Shams, R., 2024, A thorough evaluation of chitosan-based packaging film and coating for food product shelf-life extension. *Journal of Agriculture and Food Research*, *16*, 101164. https://doi.org/10.1016/j.jafr.2024.101164

Boey, J. Y., Lee, C. K., dan Tay, G. S., 2022, Factors Affecting Mechanical Properties of Reinforced Bioplastics: A Review. *Polymers*, *14*(18), 3737. https://doi.org/10.3390/polym14183737

Camasão, D. B., dan Mantovani, D., 2021, The mechanical characterization of blood vessels and their substitutes in the continuous quest for physiological-relevant performances. A critical review. *Materials Today Bio*, *10*, 100106. https://doi.org/10.1016/j.mtbio.2021.100106

Carvalho, M., Barbosa, J., da Silva, M. B. R., Albano, H., dan Teixeira, P., 2025, Impact of Polysorbate 80 on the Antimicrobial Activity of Oregano and Thyme. *Molecules*, *30*(1). https://doi.org/10.3390/molecules30010081

Chouhan, S., Sharma, K., dan Guleria, S., 2017, Antimicrobial Activity of Some Essential Oils—Present Status and Future Perspectives. *Medicines*, *4*(3), 58. https://doi.org/10.3390/medicines4030058

Dankar, I., Haddarah, A., Pujolà, M., dan Sepulcre, F., 2024, Hydrogen Bond Integration in Potato Microstructure: Effects of Water Removal, Thermal Treatment, and Cooking Techniques. *Polysaccharides*, *5*(4), 609–629. https://doi.org/10.3390/polysaccharides5040039

Das, A., Ghosh, S., dan Pramanik, N., 2024, Chitosan biopolymer and its composites: Processing, properties and applications- A comprehensive review. In *Hybrid Advances* (Vol. 6). Elsevier B.V. https://doi.org/10.1016/j.hybadv.2024.100265

de Souza, F. M., dan Gupta, R. K., 2024, Bacteria for Bioplastics: Progress, Applications, and Challenges. In *ACS Omega* (Vol. 9, Number 8, pp. 8666–

8686). American Chemical Society. https://doi.org/10.1021/acsomega.3c07372

Doustdar, F., Olad, A., dan Ghorbani, M., 2022, Effect of glutaraldehyde and calcium chloride as different crosslinking agents on the characteristics of chitosan/cellulose nanocrystals scaffold. *International Journal of Biological Macromolecules*, *208*, 912–924. https://doi.org/10.1016/j.ijbiomac.2022.03.193

Erawati, T., Isadiartuti, D., dan Anggalih, B. D., 2023, The effect of polysorbate 20 and polysorbate 80 on the solubility of quercetin. *Journal of Public Health in Africa*, *14*(S1). https://doi.org/10.4081/jphia.2023.2503

Gamage, A., Thiviya, P., Liyanapathiranage, A., Wasana, M. L. D., Jayakodi, Y., Bandara, A., Manamperi, A., Dassanayake, R. S., Evon, P., Merah, O., dan Madhujith, T., 2024, Polysaccharide-Based Bioplastics: Eco-Friendly and Sustainable Solutions for Packaging. In *Journal of Composites Science* (Vol. 8, Number 10). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/jcs8100413

Gani, S. S., dan Kusumayanti, H., 2022, The Optimization of Additional of Glycerol on the Biodegradable Foam from Corn Husk. *Journal of Vocational Studies on Applied Research*, *4*(1), 18–26. https://doi.org/10.14710/jvsar.v4i1.14303

Hanif, M. A., Nisar, S., Khan, G. S., Mushtaq, Z., dan Zubair, M., 2019, Essential Oils. In *Essential Oil Research* (pp. 3–17). Springer International Publishing. https://doi.org/10.1007/978-3-030-16546-8_1

Hoch, C. C., Petry, J., Griesbaum, L., Weiser, T., Werner, K., Ploch, M., Verschoor, A., Multhoff, G., Bashiri Dezfouli, A., dan Wollenberg, B., 2023, 1,8-cineole (eucalyptol): A versatile phytochemical with therapeutic applications across multiple diseases. *Biomedicine dan Pharmacotherapy*, *167*, 115467. https://doi.org/10.1016/j.biopha.2023.115467

Hwang, E., Yang, Y. H., Choi, J., Park, S. H., Park, K., dan Lee, J., 2025, Biodegradable Plastics as Sustainable Alternatives: Advances, Basics, Challenges, and Directions for the Future. In *Materials* (Vol. 18, Number 18). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/ma18184247

Jiang, A., Patel, R., Padhan, B., Palimkar, S., Galgali, P., Adhikari, A., Varga, I., dan Patel, M., 2023, Chitosan Based Biodegradable Composite for Antibacterial Food Packaging Application. In *Polymers* (Vol. 15, Number 10). MDPI. https://doi.org/10.3390/polym15102235

Jiménez-Gómez, C. P., dan Cecilia, J. A., 2020, Chitosan: A Natural Biopolymer with a Wide and Varied Range of Applications. In *Molecules* (Vol. 25, Number 17). MDPI AG. https://doi.org/10.3390/molecules25173981

Kammakakam, I., 2026 Membrane versatility: applications across diverse fields beyond water purification. In *Membrane Technology for Water Purification* (pp. 355–378). Elsevier. https://doi.org/10.1016/B978-0-443-32968-5.00014-0

Karua, C. S., dan Sahoo, A., 2020, Synthesis and characterization of starch/chitosan composites. *Materials Today: Proceedings*, *33*, 5179–5183. https://doi.org/10.1016/j.matpr.2020.02.878

Kokel, A., Schäfer, C., dan Török, B., 2019, Organic Synthesis Using Environmentally Benign Acid Catalysis. *Current Organic Synthesis*, *16*(4), 615–649. https://doi.org/10.2174/1570179416666190206141028

Kusumawati, R., Syamdidi, Abdullah, A. H. D., Nissa, R. C., Firdiana, B., Handayani, R., Munifah, I., Dewi, F. R., Basmal, J., dan Wibowo, S., 2025, Physical Properties of Biodegradable Chitosan-Cassava Starch Based Bioplastic Film Mechanics. *Science and Technology Indonesia*, *10*(1), 191–200. https://doi.org/10.26554/sti.2025.10.1.191-200

Lee, C.-J., Chen, L.-W., Chen, L.-G., Chang, T.-L., Huang, C.-W., Huang, M.-C., dan Wang, C.-C., 2013, Correlations of the components of tea tree oil with its antibacterial effects and skin irritation. *Journal of Food and Drug Analysis*, *21*(2), 169–176. https://doi.org/10.1016/j.jfda.2013.05.007

Magalhães, S., Alves, L., Medronho, B., Romano, A., dan Rasteiro, M. da G., 2020, Microplastics in Ecosystems: From Current Trends to Bio-Based Removal Strategies. *Molecules*, *25*(17), 3954. https://doi.org/10.3390/molecules25173954

Merghni, A., Belmamoun, A. R., Urcan, A. C., Bobiş, O., dan Lassoued, M. A., 2023, 1,8-Cineol (Eucalyptol) Disrupts Membrane Integrity and Induces Oxidative Stress in Methicillin-Resistant Staphylococcus aureus. *Antioxidants*, *12*(7), 1388. https://doi.org/10.3390/antiox12071388

Moo, C.-L., Osman, M. A., Yang, S.-K., Yap, W.-S., Ismail, S., Lim, S.-H.-E., Chong, C.-M., dan Lai, K.-S., 2021, Antimicrobial activity and mode of action of 1,8-cineol against carbapenemase-producing Klebsiella pneumoniae. *Scientific Reports*, *11*(1), 20824. https://doi.org/10.1038/s41598-021-00249-y

Mukarram, M., Choudhary, S., Khan, M. A., Poltronieri, P., Khan, M. M. A., Ali, J., Kurjak, D., dan Shahid, M., 2024, Lemongrass Essential Oil Components with Antimicrobial and Anticancer Activities. *Antioxidants*, *11*(1), 20. https://doi.org/10.3390/antiox11010020

Nazar, M., Ul Hassan Shah, M., Ahmad, A., Yahya, W. Z. N., Goto, M., dan Moniruzzaman, M., 2024, Ionic Liquid and Tween-80 Mixture as an Effective Dispersant for Oil Spills: Toxicity, Biodegradability, and Optimization. *ACS Omega*, *7*(18), 15751–15759. https://doi.org/10.1021/acsomega.2c00752

Nizamuddin, S., Baloch, A. J., Chen, C., Arif, M., dan Mubarak, N. M., 2024, Bio-based plastics, biodegradable plastics, and compostable plastics: biodegradation mechanism, biodegradability standards and environmental stratagem. In *International Biodeterioration and Biodegradation* (Vol. 195). Elsevier Ltd. https://doi.org/10.1016/j.ibiod.2024.105887

Oliver-Cuenca, V., Salaris, V., Muñoz-Gimena, P. F., Agüero, Á., Peltzer, M. A., Montero, V. A., Arrieta, M. P., Sempere-Torregrosa, J., Pavon, C., Samper, M. D., Crespo, G. R., Kenny, J. M., López, D., dan Peponi, L., 2024, Bio-Based and Biodegradable Polymeric Materials for a Circular Economy. In *Polymers* (Vol. 16, Number 21). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/polym16213015

Onyeaka, H., Obileke, K., Makaka, G., dan Nwokolo, N., 2022, Current Research and Applications of Starch-Based Biodegradable Films for Food Packaging. In *Polymers* (Vol. 14, Number 6). MDPI. https://doi.org/10.3390/polym14061126

Pasieczna-Patkowska, S., Cichy, M., dan Flieger, J., 2025, Application of Fourier Transform Infrared (FTIR) Spectroscopy in Characterization of Green Synthesized Nanoparticles. In *Molecules* (Vol. 30, Number 3). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/molecules30030684

Pellis, A., Guebitz, G. M., dan Nyanhongo, G. S., 2022, Chitosan: Sources, Processing and Modification Techniques. In *Gels* (Vol. 8, Number 7). MDPI. https://doi.org/10.3390/gels8070393

Pooja, N., Ahmed, N. Y., Mal, S. S., Bharath, P. A. S., Zhuo, G.-Y., Noothalapati, H., Managuli, V., dan Mazumder, N., 2025, Assessment of biocompatibility for citric acid crosslinked starch elastomeric films in cell culture applications. *Scientific Reports*, *15*(1), 6427. https://doi.org/10.1038/s41598-025-90933-0

Popoola-Akinola, O. O., Raji, T. J., dan Olawoye, B., 2022, Lignocellulose, dietary fibre, inulin and their potential application in food. *Heliyon*, *8*(8), e10459. https://doi.org/10.1016/j.heliyon.2022.e10459

Prahaladan, V., Poluri, N., Napoli, M., Castro, C., Yildiz, K., Berry-White, B.-A., Lu, P., Salas-de la Cruz, D., dan Hu, X., 2024, Protein and Polysaccharide Fibers via Air Jet Spinning: Emerging Techniques for Biomedical and Sustainable Applications. *International Journal of Molecular Sciences*, *25*(24), 13282. https://doi.org/10.3390/ijms252413282

Rahman Kustiawan, U., dan Pratiwi, R. (n.d.). *Farmaka DITHIZON: AGEN PENGKOMPLEKS UNTUK ANALISIS LOGAM MENGGUNAKAN SPEKTROFOTOMETRI UV-VIS*.

Reghunadhan, A., Akhina, H., Ajitha, A. R., Chandran, N., Nair, S. T., Maria, H. J., dan Thomas, S., 2024, Thermoplastic elastomers (TPEs) from rubber-plastic blends. *Advances in Thermoplastic Elastomers: Challenges and Opportunities*, 291–314. https://doi.org/10.1016/B978-0-323-91758-2.00008-8

Riska Devi Alfianty, A., Nuh Ibrahim, M., Ilmu dan Teknologi Pangan Fakultas Pertanian, J., Halu Oleo, U., Teknologi Hasil Perikanan, J., Perikanan dan Ilmu Kelautan, F., dan Halu Oleo, U., 2025, *KAJIAN BERBAGAI JENIS PENGGUNAAN PLASTICIZER TERHADAP PEMBUATAN EDIBLE FILM [Study of Various Types of Plasticizer Use in Edible Film Production]*. *3*(3), 356–363.

Rizki Pratama, S., dan Abdillah, M., 2022, *Modification of Corn Starch (Zea mays, [L]) and Xanthan Gum with Citric Acid Crosslinking Agent*.

Sandu, T., Sârbu, A., Căprărescu, S., Stoica, E. B., Iordache, T. V., dan Chiriac, A. L., 2022, Polymer Membranes as Innovative Means of Quality Restoring for Wastewater Bearing Heavy Metals. In *Membranes* (Vol. 12, Number 12). MDPI. https://doi.org/10.3390/membranes12121179

Sawunyama, L., Ajiboye, T. O., Oyewo, O., dan Onwudiwe, D. C., 2024, Ceramic-polymer composite membranes: Synthesis methods and environmental

applications. In *Ceramics International* (Vol. 50, Number 3, pp. 5067–5079). Elsevier Ltd. https://doi.org/10.1016/j.ceramint.2023.11.337

Shabbir, S., Boda, D., dan Ható, Z., 2025, Transport properties of CaCl2 are determined by the balance of ion-ion and ion-water interactions as revealed by molecular dynamics simulations. *Journal of Molecular Liquids*, *426*. https://doi.org/10.1016/j.molliq.2025.127308

Shi, X., Cui, L., Xu, C., dan Wu, S., 2025, Next-Generation Bioplastics for Food Packaging: Sustainable Materials and Applications. *Materials*, *18*(12), 2919. https://doi.org/10.3390/ma18122919

Singh, P., Pandey, V. K., Singh, R., Singh, K., Dash, K. K., dan Malik, S., 2024, Unveiling the potential of starch-blended biodegradable polymers for substantializing the eco-friendly innovations. *Journal of Agriculture and Food Research*, *15*, 101065. https://doi.org/10.1016/j.jafr.2024.101065

Tan, S. X., Ong, H. C., Andriyana, A., Lim, S., Pang, Y. L., Kusumo, F., dan Ngoh, G. C., 2022, Characterization and Parametric Study on Mechanical Properties Enhancement in Biodegradable Chitosan-Reinforced Starch-Based Bioplastic Film. *Polymers*, *14*(2), 278. https://doi.org/10.3390/polym14020278

Tarique, J., Sapuan, S. M., dan Khalina, A., 2021, Effect of glycerol plasticizer loading on the physical, mechanical, thermal, and barrier properties of arrowroot (Maranta arundinacea) starch biopolymers. *Scientific Reports*, *11*(1), 13900. https://doi.org/10.1038/s41598-021-93094-y

Tu, S., Ren, X., He, J., dan Zhang, Z., 2020, Stress–strain curves of metallic materials and post-necking strain hardening characterization: A review. *Fatigue dan Fracture of Engineering Materials dan Structures*, *43*(1), 3–19. https://doi.org/10.1111/ffe.13134

Umriani Permatasari, N., Dali, S., dan Sry Wahyuni, E., 2023, Potential Cassava Peel Waste (Manihot esculenta Crantz) in The Production of Bioethanol by Enzymatic Hydrolysis and Fermentation Using Zymomonas mobilis Bacteria. *The Journal of Pure and Applied Chemistry Research*, *12*(2), 87–103. https://doi.org/10.21776/ub.jpacr.2023.012.02.3304

Utama, G. L., Dinika, I., Nurmilah, S., Masruchin, N., Nurhadi, B., dan Balia, R. L., 2022, Characterization of Antimicrobial Composite Edible Film Formulated from Fermented Cheese Whey and Cassava Peel Starch. *Membranes*, *12*(6), 636. https://doi.org/10.3390/membranes12060636

Viktorová, J., Stupák, M., Řehořová, K., Dobiasová, S., Hoang, L., Hajšlová, J., Van Thanh, T., Van Tri, L., Van Tuan, N., dan Ruml, T., 2020, Lemon Grass Essential Oil does not Modulate Cancer Cells Multidrug Resistance by Citral—Its Dominant and Strongly Antimicrobial Compound. *Foods*, *9*(5), 585. https://doi.org/10.3390/foods9050585

Weng, S., Marcet, I., Rendueles, M., dan Díaz, M., 2025, Edible Films from the Laboratory to Industry: A Review of the Different Production Methods. In *Food and Bioprocess Technology* (Vol. 18, Number 4, pp. 3245–3271). Springer. https://doi.org/10.1007/s11947-024-03641-4

Wrzecionek, M., Matyszczak, G., Bandzerewicz, A., Ruśkowski, P., dan Gadomska-Gajadhur, A., 2021, Kinetics of Polycondensation of Citric Acid

with Glycerol Based on a Genetic Algorithm. *Organic Process Research dan Development*, *25*(2), 271–281. https://doi.org/10.1021/acs.oprd.0c00492

Wurm, F., Rietzler, B., Pham, T., dan Bechtold, T., 2020, Multivalent ions as reactive crosslinkers for biopolymers—A review. In *Molecules* (Vol. 25, Number 8). MDPI AG. https://doi.org/10.3390/molecules25081840

Yasin, M., Younis, A., Javed, T., Akram, A., Ahsan, M., Shabbir, R., Ali, M. M., Tahir, A., El-Ballat, E. M., Sheteiwy, M. S., Sammour, R. H., Hano, C., Alhumaydhi, F. A., dan El-Esawi, M. A., 2021, River Tea Tree Oil: Composition, Antimicrobial and Antioxidant Activities, and Potential Applications in Agriculture. *Plants*, *10*(10), 2105. https://doi.org/10.3390/plants10102105

Zhu, J., Bai, Y., dan Gilbert, R. G., 2023, Effects of the Molecular Structure of Starch in Foods on Human Health. In *Foods* (Vol. 12, Number 11). MDPI. https://doi.org/10.3390/foods12112263