

DAFTAR PUSTAKA

- Afriyani, H., Herasari, D., Amrulloh, H., Faranida, Q. H., Ramadani, A., Afifah, N. R., Indriani, M., Theledi, K., & Aluko, O. (2024). Synthesis and Characterization of Edible Film Based on Glucomannan from Local Porang Tubers with a Combination of Carrageenan and Sorbitol as Plasticizer. *Jurnal Biota*, 10(2), 157-167. <https://doi.org/10.19109/Biota.v9i2.16821>
- Anggraeni, A. A., Triwitono, P., Lestari, L. A., & Harmayani, E. (2024). Evaluation of glucomannan as a fat replacer in the dough and cookies made from fermented cassava flour and soy protein concentrate. *Food Chemistry*, 434, 137452. <https://doi.org/10.1016/j.foodchem.2023.137452>
- Anissa, M. N., Rahayoe, S., Harmayani, E., & Ulya, K. N. (2023). Extraction and Characterization of Glucomannan from Porang (*Amorphophallus oncophyllus*) with Size Variations of Porang. *Agritech*, 43(4), 328-334. <https://doi.org/10.22146/agritech.68886>
- Apicella, A., Barbato, A., Garofalo, E., Incarnato, L., & Scarfato, P. (2022). Effect of PVOH/PLA+ Wax Coatings on Physical and Functional Properties of Biodegradable Food Packaging Films. *Polymers*, 14(5), 935. <https://doi.org/10.3390/polym14050935>
- Armisen, R., & Gaiatas, F. (2009). 4 - Agar. In G. O. Phillips & P. A. Williams (Eds.), *Handbook of Hydrocolloids (Second Edition)* (pp. 82-107). Woodhead Publishing. <https://doi.org/10.1533/9781845695873.82>
- Atiwesh, G., Mikhael, A., Parrish, C., Banoub, J., & Le, T. (2021). Environmental impact of bioplastic use: a review. *Heliyon* 7, e07918. *Go to original source... Go to PubMed*. <https://doi.org/10.1016/j.heliyon.2021.e07918>
- Basumatary, K., Daimary, P., Das, S. K., Thapa, M., Singh, M., Mukherjee, A., & Kumar, S. (2018). Lagerstroemia speciosa fruit-mediated synthesis of silver nanoparticles and its application as filler in agar based nanocomposite films for antimicrobial food packaging. *Food Packaging and Shelf Life*, 17, 99-106. <http://dx.doi.org/10.1016%2Fj.fpsl.2018.06.003>
- Bodmeier, R., & Paeratakul, O. (1997). Plasticizer uptake by aqueous colloidal polymer dispersions used for the coating of solid dosage forms. *International journal of pharmaceuticals*, 152(1), 17-26. [https://doi.org/10.1016/S0378-5173\(97\)04882-5](https://doi.org/10.1016/S0378-5173(97)04882-5)
- Bumbudsanpharoke, N., Wongphan, P., Promhuad, K., Leelaphiwat, P., & Harnkarnsujarit, N. (2022). Morphology and permeability of bio-based poly (butylene adipate-co-terephthalate)(PBAT), poly (butylene succinate)(PBS) and linear low-density polyethylene (LLDPE) blend films control shelf-life

- of packaged bread. *Food Control*, 132, 108541. <http://dx.doi.org/10.1016/j.foodcont.2021.108541>
- Cao, Q., Zhang, Y., Chen, W., Meng, X., & Liu, B. (2018). Hydrophobicity and physicochemical properties of agarose film as affected by chitosan addition. *International Journal of Biological Macromolecules*, 106, 1307-1313. <https://doi.org/10.1016/j.ijbiomac.2017.08.134>
- Chakraborty, I., N, P., Banik, S., Govindaraju, I., Das, K., Mal, S. S., Zhuo, G. Y., Rather, M. A., Mandal, M., & Neog, A. (2022). Synthesis and detailed characterization of sustainable starch-based bioplastic. *Journal of Applied Polymer Science*, 139(39), e52924. <https://doi.org/10.1002/app.52924>
- Charles, A. L., Motsa, N., & Abdillah, A. A. (2022). A comprehensive characterization of biodegradable edible films based on potato peel starch plasticized with glycerol. *Polymers*, 14(17), 3462. <https://doi.org/10.3390/polym14173462>
- Chen, Y., Wang, S., Yang, C., Zhang, L., Li, Z., Jiang, S., Bai, R., Ye, X., & Ding, W. (2024). Chitosan/konjac glucomannan bilayer films: Physical, structural, and thermal properties. *International Journal of Biological Macromolecules*, 257, 128660. <https://doi.org/10.1016/j.ijbiomac.2023.128660>
- Cheng, J., Gao, R., Zhu, Y., & Lin, Q. (2024). Applications of biodegradable materials in food packaging: A review. *Alexandria Engineering Journal*, 91, 70-83. <https://doi.org/10.1016/j.aej.2024.01.080>
- Cheng, J., Jun, Y., Qin, J., & Lee, S.-H. (2017). Electrospinning versus microfluidic spinning of functional fibers for biomedical applications. *Biomaterials*, 114, 121-143. <https://doi.org/10.1016/j.biomaterials.2016.10.040>
- Da Rocha, M., Alemán, A., Romani, V. P., López-Caballero, M. E., Gómez-Guillén, M. C., Montero, P., & Prentice, C. (2018). Effects of agar films incorporated with fish protein hydrolysate or clove essential oil on flounder (*Paralichthys orbignyanus*) fillets shelf-life. *Food Hydrocolloids*, 81, 351-363. <https://doi.org/10.1016/j.foodhyd.2018.03.017>
- Das, A., Ringu, T., Ghosh, S., & Pramanik, N. (2023). A comprehensive review on recent advances in preparation, physicochemical characterization, and bioengineering applications of biopolymers. *Polymer Bulletin*, 80(7), 7247-7312. <https://doi.org/10.1007/s00289-022-04443-4>
- Dutta, D., & Sit, N. (2024). Comprehensive review on developments in starch-based films along with active ingredients for sustainable food packaging. *Sustainable Chemistry and Pharmacy*, 39, 101534. [10.1016/j.scp.2024.101534](https://doi.org/10.1016/j.scp.2024.101534)

- Dybka-Stępień, K., Antolak, H., Kmiotek, M., Piechota, D., & Koziróg, A. (2021). Disposable food packaging and serving materials—Trends and biodegradability. *Polymers*, 13(20), 3606. <https://doi.org/10.3390/polym13203606>
- Fekete, E., Bella, É., Csiszár, E., & Móczó, J. (2019). Improving physical properties and retrogradation of thermoplastic starch by incorporating agar. *International Journal of Biological Macromolecules*, 136, 1026-1033. <https://doi.org/10.1016/j.ijbiomac.2019.06.109>
- Fransiska, D., Abdullah, A. H. D., Irianto, H. E., Nissa, R. C., Sedayu, B. B., Syamani, F. A., & Raharjo, S. (2024). Impact of agar–glycerol ratios on the physicochemical properties of biodegradable seaweed films: A compositional study. *International Journal of Biological Macromolecules*, 280, 135855. <https://doi.org/10.1016/j.ijbiomac.2024.135855>
- Fu, X. T., & Kim, S. M. (2010). Agarase: review of major sources, categories, purification method, enzyme characteristics and applications. *Marine drugs*, 8(1), 200-218. <https://doi.org/10.3390/md8010200>
- Ganesan, A. R., Shanmugam, M., Ilansuriyan, P., Anandhakumar, R., & Balasubramanian, B. (2019). Composite film for edible oil packaging from carrageenan derivative and konjac glucomannan: Application and quality evaluation. *Polymer Testing*, 78, 105936. <https://doi.org/10.1016/j.polymertesting.2019.105936>
- Garza-Cadena, C., Ortega-Rivera, D. M., Machorro-García, G., Gonzalez-Zermeño, E. M., Homma-Dueñas, D., Plata-Gryl, M., & Castro-Muñoz, R. (2023). A comprehensive review on Ginger (*Zingiber officinale*) as a potential source of nutraceuticals for food formulations: Towards the polishing of gingerol and other present biomolecules. *Food Chemistry*, 413, 135629. <https://doi.org/10.1016/j.foodchem.2023.135629>
- Ghasemlou, M., Barrow, C. J., & Adhikari, B. (2024). The future of bioplastics in food packaging: An industrial perspective. *Food Packaging and Shelf Life*, 43, 101279. <https://doi.org/10.1016/j.fpsl.2024.101279>
- Giannakas, A. E., Salmas, C. E., Leontiou, A., Baikousi, M., Moschovas, D., Asimakopoulos, G., Zafeiropoulos, N. E., & Avgeropoulos, A. (2021). Synthesis of a novel chitosan/basil oil blend and development of novel low density poly ethylene/chitosan/basil oil active packaging films following a melt-extrusion process for enhancing chicken breast fillets shelf-life. *Molecules*, 26(6), 1585. <https://doi.org/10.3390/molecules26061585>
- Guerrero, P., Etxabide, A., Leceta, I., Peñalba, M., & de la Caba, K. (2014). Extraction of agar from *Gelidium sesquipedale* (Rhodophyta) and surface

- characterization of agar based films. *Carbohydrate Polymers*, 99, 491-498.
<https://doi.org/10.1016/j.carbpol.2013.08.049>
- Harmayani, E., Aprilia, V., & Marsono, Y. (2014). Characterization of glucomannan from *Amorphophallus oncophyllus* and its prebiotic activity in vivo. *Carbohydrate Polymers*, 112, 475-479.
<https://doi.org/10.1016/j.carbpol.2014.06.019>
- Haryani, K., Prasetyaningrum, A., Handayani, N. A., Kevin, F., & Nadya, T. (2023). Extraction of Glucomannan from Porang (*Amorphophallus oncophyllus*) Flour Using Enzymatic Hydrolysis Pretreatment. *International Journal of Chemical and Biochemical Sciences*, 24(4), 362-368.
<https://doi.org/10.5327/fst.1423>
- Ho, H. V. T., Jovanovski, E., Zurbau, A., Mejia, S. B., Sievenpiper, J. L., Au-Yeung, F., Jenkins, A. L., Duvnjak, L., Leiter, L., & Vuksan, V. (2017). A systematic review and meta-analysis of randomized controlled trials of the effect of konjac glucomannan, a viscous soluble fiber, on LDL cholesterol and the new lipid targets non-HDL cholesterol and apolipoprotein B. *The American journal of clinical nutrition*, 105(5), 1239-1247.
<https://doi.org/10.3945/ajcn.116.142158>
- Hong, T., Yin, J.-Y., Nie, S.-P., & Xie, M.-Y. (2021). Applications of infrared spectroscopy in polysaccharide structural analysis: Progress, challenge and perspective. *Food chemistry: X*, 12, 100168.
<https://doi.org/10.1016/j.fochx.2021.100168>
- Horinaka, J.-i., Okamoto, A., & Takigawa, T. (2016). Rheological characterization of konjac glucomannan in concentrated solutions. *Journal of Food Measurement and Characterization*, 10, 220-225.
<https://doi.org/10.1007/s11694-015-9296-6>
- Huang, D., Zhang, Z., Zheng, Y., Quan, Q., Wang, W., & Wang, A. (2020). Synergistic effect of chitosan and halloysite nanotubes on improving agar film properties. *Food Hydrocolloids*, 101, 105471.
<https://doi.org/10.1016/j.foodhyd.2019.105471>
- Huang, H., Mao, L., Wang, W., Li, Z., & Qin, C. (2023). A facile strategy to fabricate antibacterial hydrophobic, high-barrier, cellulose papersheets for food packaging. *International Journal of Biological Macromolecules*, 236, 123630. <https://doi.org/10.1016/j.ijbiomac.2023.123630>
- Huang, Q., Jin, W., Ye, S., Hu, Y., Wang, Y., Xu, W., Li, J., & Li, B. (2016). Comparative studies of konjac flours extracted from *Amorphophallus guripingensis* and *Amorphophallus rivirei*: Based on chemical analysis and rheology. *Food Hydrocolloids*, 57, 209-216.
<https://doi.org/10.1016/j.foodhyd.2016.01.017>

- Iheanacho, B. C., Ajoge, H. N., Ismail, U., Zoum, F. A., Ifeanyi-Nze, F. O., Okunbi, F. O., Edeh, C. F., Chimezie, N. N., Udoh, E. A., & Nworie, J. O. (2024). A Comprehensive Study on the Production and Characterization of Eco-Friendly Biodegradable Plastic Films from Dent Corn Starch. *Archives of Advanced Engineering Science*, 1-10. <https://doi.org/10.47852/bonviewAAES42022946>
- Iribarren, E., Wongphan, P., Bumbudsanpharoke, N., Chonhenchob, V., Jarupan, L., & Harnkarnsujarit, N. (2023). Thermoplastic agar blended PBAT films with enhanced oxygen scavenging activity. *Food Bioscience*, 54, 102940. <https://doi.org/10.1016/j.fbio.2023.102940>
- Izdebska-Podsiadły, J. (2021). Effect of plasma surface modification on print quality of biodegradable PLA films. *Applied Sciences*, 11(17), 8245. <https://doi.org/10.3390/app11178245>
- Jafarzadeh, S., Jafari, S. M., Salehabadi, A., Nafchi, A. M., Kumar, U. S. U., & Khalil, H. A. (2020). Biodegradable green packaging with antimicrobial functions based on the bioactive compounds from tropical plants and their by-products. *Trends in Food Science & Technology*, 100, 262-277. <https://doi.org/10.1016/j.tifs.2020.04.017>
- Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., Narayan, R., & Law, K. L. (2015). Plastic waste inputs from land into the ocean. *science*, 347(6223), 768-771. <https://doi.org/10.1126/science.1260352>
- Jang, S., Shin, Y., Seo, Y., & Song, K. (2011). Effects of various plasticizers and nanoclays on the mechanical properties of red algae film. *Journal of Food Science*, 76(3), N30-N34. <https://doi.org/10.1111/j.1750-3841.2011.02089.x>
- Jumaidin, R., Sapuan, S., Jawaid, M., Ishak, M., & Sahari, J. (2016). Characteristics of thermoplastic sugar palm Starch/Agar blend: Thermal, tensile, and physical properties. *International Journal of Biological Macromolecules*, 89, 575-581. <https://doi.org/10.1016/j.ijbiomac.2016.05.028>
- Kocira, A., Kozłowicz, K., Panasiewicz, K., Staniak, M., Szpunar-Krok, E., & Hortyńska, P. (2021). Polysaccharides as edible films and coatings: Characteristics and influence on fruit and vegetable quality—A review. *Agronomy*, 11(5), 813. <https://doi.org/10.3390/agronomy11050813>
- Lestari, P., & Trihadiningrum, Y. (2019). The impact of improper solid waste management to plastic pollution in Indonesian coast and marine environment. *Marine pollution bulletin*, 149, 110505. <https://doi.org/10.1016/j.marpolbul.2019.110505>

- Li, X., Jiang, F., Ni, X., Yan, W., Fang, Y., Corke, H., & Xiao, M. (2015). Preparation and characterization of konjac glucomannan and ethyl cellulose blend films. *Food Hydrocolloids*, 44, 229-236. <https://doi.org/10.1016/j.foodhyd.2014.09.027>
- Liu, X., Xu, Y., Zhan, X., Xie, W., Yang, X., Cui, S. W., & Xia, W. (2020). Development and properties of new kojic acid and chitosan composite biodegradable films for active packaging materials. *International Journal of Biological Macromolecules*, 144, 483-490. <https://doi.org/10.1016/j.ijbiomac.2019.12.126>
- Liu, Z., Lin, D., Lopez-Sanchez, P., & Yang, X. (2020). Characterizations of bacterial cellulose nanofibers reinforced edible films based on konjac glucomannan. *International Journal of Biological Macromolecules*, 145, 634-645. <https://doi.org/10.1016/j.ijbiomac.2019.12.109>
- Madera-Santana, T. J., Freile-Pelegrin, Y., & Azamar-Barrios, J. (2014). Physicochemical and morphological properties of plasticized poly (vinyl alcohol)-agar biodegradable films. *International Journal of Biological Macromolecules*, 69, 176-184. <https://doi.org/10.1016/j.ijbiomac.2014.05.044>
- Maghfirah, A., Sudiaty, S., Sitepu, S. N. K. B., & Widyanti, M. (2023). The Effect of Using a Combination of Sorbitol and Glycerol Plasticizers on the Characterization of Edible Film from Porang (*Amorphophallus oncophyllus*) Starch. *Journal of Technomaterial Physics*, 5(2), 86-92. <https://doi.org/10.32734/jotp.v5i2.12397>
- Malhotra, M., Garg, N., Chand, P., & Jakhete, A. (2023). Chapter 20 - Bio-based bioplastics: Current and future developments. In V. K. Gupta (Ed.), *Valorization of Biomass to Bioproducts* (pp. 475-504). Elsevier. <https://doi.org/10.1016/B978-0-12-822887-6.00020-6>
- Man, J., Yang, Y., Zhang, C., Zhou, X., Dong, Y., Zhang, F., Liu, Q., & Wei, C. (2012). Structural changes of high-amylose rice starch residues following in vitro and in vivo digestion. *Journal of Agricultural and Food Chemistry*, 60(36), 9332-9341. <https://doi.org/10.1021/jf302966f>
- Mangala, D., Saputra, E., Sedayu, B. B., Pujiastuti, D. Y., Syamani, F. A., Novianto, T. D., Pamungkas, A., & Irianto, H. E. (2024). Utilization of waste cooking oil as a substitute for plasticizers in the production of carrageenan/cornstarch bioplastic. *Green Materials*, 40(XXXX), 1-9. <https://doi.org/10.1680/jgrma.23.00125>
- Mathew, A. P., & Oksman, K. (2014). Processing of bionanocomposites: solution casting. In *HANDBOOK OF GREEN MATERIALS: 2 Bionanocomposites*:

processing, characterization and properties (pp. 35-52). World Scientific./https://doi.org/10.1142/9789814566469_0018

Mendes, A. C., & Pedersen, G. A. (2021). Perspectives on sustainable food packaging:—is bio-based plastics a solution? *Trends in Food Science & Technology*, 112, 839-846. <https://doi.org/10.1016/j.tifs.2021.03.049>

Mitri, A., Maghfirah, A., & Brahmana, K. (2023). Effect of Gelatinization Temperature on the Physical Properties of Porang (*Amorphophallus oncophyllus*) Starch Bioplastics with Sorbitol Plasticizer. *Journal of Technomaterial Physics*, 5(1), 33-38. <https://doi.org/10.32734/jotpv5i1.10217>

Moe, N. C., Winotapun, C., Hararak, B., Wanmolee, W., Suwanamornlert, P., Leelaphiwat, P., Boonruang, K., Chinsirikul, W., & Chonhenchob, V. (2023). Application of lignin nanoparticles in polybutylene succinate based antifungal packaging for extending the shelf life of bread. *Food Packaging and Shelf Life*, 39, 101127.

Mohajer, S., Rezaei, M., & Hosseini, S. F. (2017). Physico-chemical and microstructural properties of fish gelatin/agar bio-based blend films. *Carbohydrate Polymers*, 157, 784-793. <https://doi.org/10.1016/j.carbpol.2016.10.061>

Moriana, R., Zhang, Y., Mischnick, P., Li, J., & Ek, M. (2014). Thermal degradation behavior and kinetic analysis of spruce glucomannan and its methylated derivatives. *Carbohydrate Polymers*, 106, 60-70. <https://doi.org/10.1016/j.carbpol.2014.01.086>

Mostafavi, F. S., & Zaeim, D. (2020). Agar-based edible films for food packaging applications-A review. *International Journal of Biological Macromolecules*, 159, 1165-1176. <https://doi.org/10.1016/j.ijbiomac.2020.05.123>

Nešić, A., Cabrera-Barjas, G., Dimitrijević-Branković, S., Davidović, S., Radovanović, N., & Delattre, C. (2019). Prospect of polysaccharide-based materials as advanced food packaging. *Molecules*, 25(1), 135. <https://doi.org/10.3390/molecules25010135>

Neto, R. J. G., Genevro, G. M., de Almeida Paulo, L., Lopes, P. S., de Moraes, M. A., & Beppu, M. M. (2019). Characterization and in vitro evaluation of chitosan/konjac glucomannan bilayer film as a wound dressing. *Carbohydrate Polymers*, 212, 59-66. <https://doi.org/10.1016/j.carbpol.2019.02.017>

- Nieto, M. B. (2009). Structure and function of polysaccharide gum-based edible films and coatings. *Edible films and coatings for food applications*, 57-112. http://dx.doi.org/10.1007/978-0-387-92824-1_3
- Nikonenko, N., Buslov, D., Sushko, N., & Zhibankov, R. (2005). Spectroscopic manifestation of stretching vibrations of glycosidic linkage in polysaccharides. *Journal of Molecular Structure*, 752(1-3), 20-24. <http://dx.doi.org/10.1016/j.molstruc.2005.05.015>
- Nurlatifah, I., & Amyranti, M. (2023). The Utilization from Glucomannan of Porang Flour (*Amorphophallus Muelleri* Blume) as a Raw Material for Making an Edible Film. *BERKALA SAINSTEK*, 11(3), 138-144. <https://doi.org/10.19184/bst.v11i3.38122>
- Nurlela, N., Ariesta, N., Laksono, D. S., Santosa, E., & Muhandri, T. (2021). Characterization of glucomannan extracted from fresh porang tubers using ethanol technical grade. *Molekul*, 16(1), 1-8. <http://dx.doi.org/10.20884/1.jm.2021.16.1.632>
- Otoni, C. G., Avena-Bustillos, R. J., Azeredo, H. M., Lorevice, M. V., Moura, M. R., Mattoso, L. H., & McHugh, T. H. (2017). Recent advances on edible films based on fruits and vegetables—a review. *Comprehensive reviews in food science and food safety*, 16(5), 1151-1169. <https://doi.org/10.1111/1541-4337.12281>
- Ouyang, D., Deng, J., Zhou, K., Liang, Y., Chen, Y., Wang, D., Zhong, J., Sun, Y., & Li, M. (2020). The effect of deacetylation degree of konjac glucomannan on microbial metabolites and gut microbiota in vitro fermentation. *Journal of Functional Foods*, 66, 103796. <https://doi.org/10.1016/j.jff.2020.103796>
- Pei, J., Palanisamy, C. P., Srinivasan, G. P., Panagal, M., Kumar, S. S. D., & Mironescu, M. (2024). A comprehensive review on starch-based sustainable edible films loaded with bioactive components for food packaging. *International Journal of Biological Macromolecules*, 133332. <https://doi.org/10.1016/j.ijbiomac.2024.133332>
- Peng, S., Zhang, J., Zhang, T., Hati, S., Mo, H., Xu, D., Li, H., Hu, L., & Liu, Z. (2022). Characterization of carvacrol incorporated antimicrobial film based on agar/konjac glucomannan and its application in chicken preservation. *Journal of Food Engineering*, 330, 111091. <https://doi.org/10.1016/j.jfoodeng.2022.111091>
- Prabha, K., Ghosh, P., S, A., Joseph, R. M., Krishnan, R., Rana, S. S., & Pradhan, R. C. (2021). Recent development, challenges, and prospects of extrusion technology. *Future Foods*, 3, 100019. <https://doi.org/10.1016/j.fufo.2021.100019>

- Qiao, D., Lu, J., Chen, Z., Liu, X., Li, M., & Zhang, B. (2023). Zein inclusion changes the rheological, hydrophobic and mechanical properties of agar/konjac glucomannan based system. *Food Hydrocolloids*, 137, 108365. <https://doi.org/10.1016/j.foodhyd.2022.108365>
- Qiao, D., Tu, W., Zhong, L., Wang, Z., Zhang, B., & Jiang, F. (2019). Microstructure and mechanical/hydrophilic features of agar-based films incorporated with konjac glucomannan. *Polymers*, 11(12), 1952. <https://doi.org/10.3390/polym11121952>
- Qin, J., Xiao, M., Wang, S., Peng, C., Wu, X., & Jiang, F. (2023). Effect of drying temperature on microstructural, mechanical, and water barrier properties of konjac glucomannan/agar film produced at industrial scale. *LWT*, 173, 114275. <https://doi.org/10.1016/j.lwt.2022.114275>
- Reddy, J. P., & Rhim, J.-W. (2014). Characterization of bionanocomposite films prepared with agar and paper-mulberry pulp nanocellulose. *Carbohydrate Polymers*, 110, 480-488. <https://doi.org/10.1016/j.carbpol.2014.04.056>
- Roy, S., & Rhim, J.-W. (2019). Agar-based antioxidant composite films incorporated with melanin nanoparticles. *Food Hydrocolloids*, 94, 391-398. <https://doi.org/10.1016/j.foodhyd.2019.03.038>
- Roy, S., & Rhim, J.-W. (2021). Carrageenan/agar-based functional film integrated with zinc sulfide nanoparticles and Pickering emulsion of tea tree essential oil for active packaging applications. *International Journal of Biological Macromolecules*, 193, 2038-2046. <https://doi.org/10.1016/j.ijbiomac.2021.11.035>
- Sedayu, B. B., Cran, M. J., & Bigger, S. W. (2019). A Review of Property Enhancement Techniques for Carrageenan-based Films and Coatings. *Carbohydrate Polymers*, 216, 287-302. <https://doi.org/10.1016/j.carbpol.2019.04.021>
- Sedayu, B. B., Cran, M. J., & Bigger, S. W. (2020). Reinforcement of refined and semi-refined carrageenan film with nanocellulose. *Polymers*, 12(5), 1145. <https://doi.org/10.3390/polym12051145>
- Sedayu, B. B., Cran, M. J., & Bigger, S. W. (2021). Effects of surface photocrosslinking on the properties of semi-refined carrageenan film. *Food Hydrocolloids*, 111, 106196. <https://doi.org/10.1016/j.foodhyd.2020.106196>
- Sejidov, F. T., Mansoori, Y., & Goodarzi, N. (2005). Esterification reaction using solid heterogeneous acid catalysts under solvent-less condition. *Journal of Molecular Catalysis A: Chemical*, 240(1-2), 186-190. <http://dx.doi.org/10.1016/j.molcata.2005.06.048>

- Sewwandi, M., Wijesekara, H., Rajapaksha, A. U., Soysa, S., & Vithanage, M. (2023). Microplastics and plastics-associated contaminants in food and beverages; Global trends, concentrations, and human exposure. *Environmental Pollution*, 317, 120747. <https://doi.org/10.1016/j.envpol.2022.120747>
- Shahbazi, M., Ahmadi, S. J., Seif, A., & Rajabzadeh, G. (2016). Carboxymethyl cellulose film modification through surface photo-crosslinking and chemical crosslinking for food packaging applications. *Food Hydrocolloids*, 61, 378-389. <https://doi.org/10.1016/j.foodhyd.2016.04.021>
- Shanbhag, C., Shenoy, R., Shetty, P., Srinivasulu, M., & Nayak, R. (2023). Formulation and characterization of starch-based novel biodegradable edible films for food packaging. *Journal of Food Science and Technology*, 60(11), 2858-2867. <https://doi.org/10.1007/s13197-023-05803-2>
- Shankar, S., Reddy, J. P., & Rhim, J.-W. (2015). Effect of lignin on water vapor barrier, mechanical, and structural properties of agar/lignin composite films. *International Journal of Biological Macromolecules*, 81, 267-273. <https://doi.org/10.1016/j.ijbiomac.2015.08.015>
- Shi, X.-D., Yin, J.-Y., Zhang, L.-J., Huang, X.-J., & Nie, S.-P. (2019). Studies on O-acetyl-glucomannans from *Amorphophallus* species: Comparison of physicochemical properties and primary structures. *Food Hydrocolloids*, 89, 503-511. <https://doi.org/10.1016/j.foodhyd.2018.11.013>
- Siddiqui, S. A., Yang, X., Deshmukh, R. K., Gaikwad, K. K., Bahmid, N. A., & Castro-Muñoz, R. (2024). Recent advances in reinforced bioplastics for food packaging—A critical review. *International Journal of Biological Macromolecules*, 130399. <https://doi.org/10.1016/j.ijbiomac.2024.130399>
- Sudaryati, H., Mulyani, T., & Hansyah, E. R. (2010). Physical and mechanical properties of edible film from porang (*Amorphophallus oncophyllus*) flour and carboxymethylcellulose. *Jurnal Teknologi Pertanian*, 11(3).
- Sun, Y., Xu, X., Zhang, Q., Zhang, D., Xie, X., Zhou, H., Wu, Z., Liu, R., & Pang, J. (2023). Review of konjac glucomannan structure, properties, gelation mechanism, and application in medical biology. *Polymers*, 15(8), 1852. <https://doi.org/10.3390/polym15081852>
- Suwanamornlert, P., Kerddonfag, N., Sane, A., Chinsirikul, W., Zhou, W., & Chonhenchob, V. (2020). Poly (lactic acid)/poly (butylene-succinate-co-adipate)(PLA/PBSA) blend films containing thymol as alternative to synthetic preservatives for active packaging of bread. *Food Packaging and Shelf Life*, 25, 100515. <http://dx.doi.org/10.1016/j.fpsl.2020.100515>

- Thiounn, T., & Smith, R. C. (2020). Advances and approaches for chemical recycling of plastic waste. *Journal of Polymer Science*, 58(10), 1347-1364. <https://doi.org/10.1002/pol.20190261>
- Thompson, J. M. (2018). *Infrared spectroscopy*. Jenny Stanford Publishing.
- Tsang, Y. F., Kumar, V., Samadar, P., Yang, Y., Lee, J., Ok, Y. S., Song, H., Kim, K.-H., Kwon, E. E., & Jeon, Y. J. (2019). Production of bioplastic through food waste valorization. *Environment international*, 127, 625-644. <https://doi.org/10.1016/j.envint.2019.03.076>
- Valizadeh, S., Naseri, M., Babaei, S., Hosseini, S. M. H., & Imani, A. (2019). Development of bioactive composite films from chitosan and carboxymethyl cellulose using glutaraldehyde, cinnamon essential oil and oleic acid. *International Journal of Biological Macromolecules*, 134, 604-612. <https://doi.org/10.1016/j.ijbiomac.2019.05.071>
- Vieira, M. G. A., Da Silva, M. A., Dos Santos, L. O., & Beppu, M. M. (2011). Natural-based plasticizers and biopolymer films: A review. *European polymer journal*, 47(3), 254-263. <https://doi.org/10.1016/j.eurpolymj.2010.12.011>
- Wan, Y.-J., Hong, T., Shi, H.-F., Yin, J.-Y., Koev, T., Nie, S.-P., Gilbert, R. G., & Xie, M.-Y. (2021). Probiotic fermentation modifies the structures of pectic polysaccharides from carrot pulp. *Carbohydrate Polymers*, 251, 117116. <https://dx.doi.org/10.1016/j.carbpol.2020.117116>
- Wang, K., Wu, K., Xiao, M., Kuang, Y., Corke, H., Ni, X., & Jiang, F. (2017). Structural characterization and properties of konjac glucomannan and zein blend films. *International Journal of Biological Macromolecules*, 105, 1096-1104. <https://doi.org/10.1016/j.ijbiomac.2017.07.127>
- Wang, L., Zhang, Y., Xing, Q., Xu, J., & Li, L. (2023). Quality and microbial diversity of homemade bread packaged in cinnamaldehyde loaded poly (lactic acid)/konjac glucomannan/wheat gluten bilayer film during storage. *Food Chemistry*, 402, 134259. <https://doi.org/10.1016/j.foodchem.2022.134259>
- Wang, L. Z., Liu, L., Holmes, J., Kerry, J. F., & Kerry, J. P. (2007). Assessment of film-forming potential and properties of protein and polysaccharide-based biopolymer films. *International journal of food science & technology*, 42(9), 1128-1138. <https://doi.org/10.1111/j.1365-2621.2006.01440.x>
- Wang, X., Guo, C., Hao, W., Ullah, N., Chen, L., Li, Z., & Feng, X. (2018). Development and characterization of agar-based edible films reinforced with nano-bacterial cellulose. *International Journal of Biological*

Macromolecules, 118, 722-730.
<https://doi.org/10.1016/j.ijbiomac.2018.06.089>

Wang, Y.-X., Xin, Y., Yin, J.-Y., Huang, X.-J., Wang, J.-Q., Hu, J.-L., Geng, F., & Nie, S.-P. (2022). Revealing the architecture and solution properties of polysaccharide fractions from *Macrolepiota aluminosa* (Berk.) Pegler. *Food Chemistry*, 368, 130772.
<https://doi.org/10.1016/j.foodchem.2021.130772>

Wiercigroch, E., Szafraniec, E., Czamara, K., Pacia, M. Z., Majzner, K., Kochan, K., Kaczor, A., Baranska, M., & Malek, K. (2017). Raman and infrared spectroscopy of carbohydrates: A review. *Spectrochimica acta part a: Molecular and Biomolecular Spectroscopy*, 185, 317-335.
<https://doi.org/10.1016/j.saa.2017.05.045>

Wongphan, P., & Harnkarnsujarit, N. (2020). Characterization of starch, agar and maltodextrin blends for controlled dissolution of edible films. *International Journal of Biological Macromolecules*, 156, 80-93.
<https://doi.org/10.1016/j.ijbiomac.2020.04.056>

Worm, B., Lotze, H. K., Jubinville, I., Wilcox, C., & Jambeck, J. (2017). Plastic as a persistent marine pollutant. *Annual Review of Environment and Resources*, 42(1), 1-26. <http://dx.doi.org/10.1146/annurev-environ-102016-060700>

Wu, C., Peng, S., Wen, C., Wang, X., Fan, L., Deng, R., & Pang, J. (2012). Structural characterization and properties of konjac glucomannan/curdlan blend films. *Carbohydrate Polymers*, 89(2), 497-503.
<https://doi.org/10.1016/j.carbpol.2012.03.034>

Xiao, M., Luo, L., Tang, B., Qin, J., Wu, K., & Jiang, F. (2022). Physical, structural, and water barrier properties of emulsified blend film based on konjac glucomannan/agar/gum Arabic incorporating virgin coconut oil. *LWT*, 154, 112683. <https://doi.org/10.1016/j.lwt.2021.112683>

Yadav, M., & Chiu, F.-C. (2019). Cellulose nanocrystals reinforced κ -carrageenan based UV resistant transparent bionanocomposite films for sustainable packaging applications. *Carbohydrate Polymers*, 211, 181-194.
<https://doi.org/10.1016/j.carbpol.2019.01.114>

Yang, D., Yuan, Y., Wang, L., Wang, X., Mu, R., Pang, J., Xiao, J., & Zheng, Y. (2017). A review on konjac glucomannan gels: Microstructure and application. *International journal of molecular sciences*, 18(11), 2250.
<https://doi.org/10.3390/ijms18112250>

- Yanuriati, A., & Basir, D. (2020). Peningkatan kelarutan glukomanan porang (*Amorphophallus muelleri* Blume) dengan penggilingan basah dan kering. *Agritech*, 40(3), 223-231. <https://doi.org/10.22146/agritech.43684>
- Yanuriati, A., Marseno, D. W., & Harmayani, E. (2017). Characteristics of glucomannan isolated from fresh tuber of Porang (*Amorphophallus muelleri* Blume). *Carbohydrate Polymers*, 156, 56-63. <https://doi.org/10.1016/j.carbpol.2016.08.080>
- Ye, X., Kennedy, J., Li, B., & Xie, B. (2006). Condensed state structure and biocompatibility of the konjac glucomannan/chitosan blend films. *Carbohydrate Polymers*, 64(4), 532-538. <https://doi.org/10.1016/j.carbpol.2005.11.005>
- Zhang, R., Wang, W., Zhang, H., Dai, Y., Dong, H., & Hou, H. (2019). Effects of hydrophobic agents on the physicochemical properties of edible agar/maltodextrin films. *Food Hydrocolloids*, 88, 283-290. <http://dx.doi.org/10.1016/j.foodhyd.2018.10.008>
- Zhang, W., & Rhim, J.-W. (2022). Recent progress in konjac glucomannan-based active food packaging films and property enhancement strategies. *Food Hydrocolloids*, 128, 107572. <http://dx.doi.org/10.1016/j.foodhyd.2022.107572>
- Zhang, W., Roy, S., & Rhim, J. W. (2023). Copper-based nanoparticles for biopolymer-based functional films in food packaging applications. *Comprehensive reviews in food science and food safety*, 22(3), 1933-1952. <https://doi.org/10.1111/1541-4337.13136>
- Zhao, R., Torley, P., & Halley, P. J. (2008). Emerging biodegradable materials: starch-and protein-based bio-nanocomposites. *Journal of Materials Science*, 43(9), 3058-3071. <http://dx.doi.org/10.1007/s10853-007-2434-8>
- Zou, Y., Yuan, C., Cui, B., Liu, P., Wu, Z., & Zhao, H. (2021). Formation of high amylose corn starch/konjac glucomannan composite film with improved mechanical and barrier properties. *Carbohydrate Polymers*, 251, 117039. <https://doi.org/10.1016/j.carbpol.2020.117039>
- Zou, Y., Yuan, C., Cui, B., Sha, H., Liu, P., Lu, L., & Wu, Z. (2021). High-amylose corn starch/konjac glucomannan composite film: Reinforced by incorporating β -cyclodextrin. *Journal of Agricultural and Food Chemistry*, 69(8), 2493-2500. <https://doi.org/10.1016/j.carbpol.2020.117039>