# DAFTAR PUSTAKA


Abduwaiti, A., Liu, X., Yan, C., Xue, Y., Jin, T., Wu, H., He, P., Bao, Z., & Liu, Q. (2021). Testing Biodegradable Films as Alternatives to Plastic-Film Mulching for Enhancing the Yield and Economic Benefits of Processed Tomato in Xinjiang Region. *Sustainability*, *13*(6), 3093. https://doi.org/10.3390/su13063093

Adhikari, D., Mukai, M., Kubota, K., Kai, T., Kaneko, N., Araki, K. S., & Kubo, M. (2016). Degradation of Bioplastics in Soil and Their Degradation Effects on Environmental Microorganisms. *Journal of Agricultural Chemistry and Environment*, *05*(01), 23–34. https://doi.org/10.4236/jacen.2016.51003

Akrami, M., Ghasemi, I., Azizi, H., Karrabi, M., & Seyedabadi, M. (2016). A new approach in compatibilization of the poly(lactic acid)/thermoplastic starch (PLA/TPS) blends. *Carbohydrate Polymers*, *144*, 254–262. https://doi.org/10.1016/j.carbpol.2016.02.035

Alvarez-Betancourt, P. A., Luna-Pabello, V. M., Ussa-Garzón, J. E., & Maciel-Cerda, A. (2021). Biodegradability of a bioplastic film from tamarind xyloglucan in composting bioreactors. *DYNA*, *88*(218), 143–151. https://doi.org/10.15446/dyna.v88n218.90468

Anbarasan, R., Babot, O., & Maillard, B. (2004). Crosslinking of high-density polyethylene in the presence of organic peroxides. *Journal of Applied Polymer Science*, *93*(1), 75–81. https://doi.org/10.1002/app.20390

Anggela, Harmayani, E., Setyaningsih, W., & Wichienchot, S. (2022). Prebiotic effect of porang oligo-glucomannan using fecal batch culture fermentation. *Food Science and Technology*, *42*, e06321. https://doi.org/10.1590/fst.06321

Aprilia, V., Kusumawardani, N., Fauzi, R., Estiningsih, D., & Kusumawati, D. (2023). Calcium oxalate levels, glucomannan levels, and antioxidative activities of different sized Amorphophallus oncophyllus particles and the maceration of Strobilanthes crispus. *IOP Conference Series: Earth and Environmental Science*, *1241*(1), 012088. https://doi.org/10.1088/1755-1315/1241/1/012088

Ari, G. A., & Aydin, I. (2010). Rheological and fusion behaviors of PVC micro- and nano-composites evaluated from torque rheometer data. *Journal of Vinyl and Additive Technology*, *16*(4), 223–228. https://doi.org/10.1002/vnl.20241

Awasthi, S. K., Kumar, M., Kumar, V., Sarsaiya, S., Anerao, P., Ghosh, P., Singh, L., Liu, H., Zhang, Z., & Awasthi, M. K. (2022). A comprehensive review on recent advancements in biodegradation and sustainable management of biopolymers. *Environmental Pollution*, *307*(May), 119600. https://doi.org/10.1016/j.envpol.2022.119600

Badea, M. A., Balas, M., & Dinischiotu, A. (2023a). Microplastics in Freshwaters: Implications for Aquatic Autotrophic Organisms and Fauna Health. *Microplastics*, *2*(1), 39–59. https://doi.org/10.3390/microplastics2010003

Badea, M. A., Balas, M., & Dinischiotu, A. (2023b). Microplastics in Freshwaters: Implications for Aquatic Autotrophic Organisms and Fauna Health. *Microplastics*, *2*(1), 39–59. https://doi.org/10.3390/microplastics2010003

Bahlawan, Z. A. S., Damayanti, A., Megawati, M., Cahyari, K., Andriani, N., & Hapsari, R. A. (2021). Study of Glucomannan Extraction With Hydrochloric Acid Catalyst and Alcohol Solvent Based on Porang Tuber Flour (Amorphophallus Oncophyllus). *Iop Conference Series Earth and Environmental Science*, *700*(1), 012069. https://doi.org/10.1088/1755-1315/700/1/012069

Behera, S. S., & Ray, R. C. (2017). Nutritional and potential health benefits of konjac glucomannan, a promising polysaccharide of elephant foot yam, *Amorphophallus konjac* K. Koch: A review. *Food Reviews International*, *33*(1), 22–43. https://doi.org/10.1080/87559129.2015.1137310

Blesa Marco, Z. E., Sáez, J. A., Andreu-Rodríguez, F. J., Penalver, R., Rodríguez, M., Eissenberger, K., Cinelli, P., Bustamante, M. Á., & Moral, R. (2024). Effect of Abiotic Treatments on Agricultural Plastic Waste: Efficiency of the Degradation Processes. *Polymers*, *16*(3), 359. https://doi.org/10.3390/polym16030359

Cao, J.-J., Zhu, T.-H., Wang, S.-Y., Gu, Z.-Y., Wang, X., & Ji, S.-J. (2014). tert-Butyl peroxybenzoate (TBPB)-mediated 2-isocyanobiaryl insertion with 1,4-dioxane: Efficient synthesis of 6-alkyl phenanthridines via C(sp3)–H/C(sp2)–H bond functionalization. *Chemical Communications*, *50*(49), 6439. https://doi.org/10.1039/c4cc00743c

Carrizo, M. E., Alesso, C. A., Soares Franco, H. H., Bernabé Ferreira, C. J., & Imhoff, S. (2018). Tensile strength of mollisols of contrasting texture under influence of plant growth and crop residues addition. *Geoderma*, *329*, 1–10. https://doi.org/10.1016/j.geoderma.2018.04.024

Chairiyah, N., Harijati, N., Universitas Brawijaya, Mastuti, R., & Universitas Brawijaya. (2023). The Relationship of Chemical Compounds and Crystal Development in Porang Tuber (Amorphophallus muelleri Blume). *The Journal of Experimental Life Sciences*, *13*(1), 1–11. https://doi.org/10.21776/ub.jels.2023.013.01.01

Chaléat, C., Halley, P. J., & Truss, R. W. (2014). Mechanical Properties of Starch-Based Plastics. In *Starch Polymers* (pp. 187–209). Elsevier. https://doi.org/10.1016/B978-0-444-53730-0.00023-3

Chandra, R. (1998). Biodegradable polymers. *Progress in Polymer Science*, *23*(7), 1273–1335. https://doi.org/10.1016/S0079-6700(97)00039-7

Chen, J., Liu, C., Chen, Y., Chen, Y., & Chang, P. R. (2008). Structural characterization and properties of starch/konjac glucomannan blend films. *Carbohydrate Polymers*, *74*(4), 946–952. https://doi.org/10.1016/j.carbpol.2008.05.021

Connolly, M. L., Lovegrove, J. A., & Tuohy, K. (2010). Konjac Glucomannan Hydrolysate Beneficially Modulates Bacterial Composition and Activity Within the Faecal Microbiota. *Journal of Functional Foods*, *2*(3), 219–224. https://doi.org/10.1016/j.jff.2010.05.001

Danjaji, I. D., Nawang, R., Ishiaku, U. S., Ismail, H., & Mohd. Ishak, Z. A. (2001). Sago starch-filled linear low-density polyethylene (LLDPE) films: Their mechanical properties and water absorption. *Journal of Applied Polymer Science*, *79*(1), 29–37. https://doi.org/10.1002/1097-4628(20010103)79:1<29::AID-APP40>3.0.CO;2-R

Dewati, R., Setyarini, A., Harinta, Y. W., & Widyastuti, R. (2023). Penyuluhan Dalam Rangka Pengembangan Usaha Produk Olahan Porang pada Kelompok Usaha Sahabat Petani Porang Sukoharjo. *Indonesian Journal of Empowerment and Community Services*, *4*(2).

Du, J., Lee, S., Sinha, S., Solberg, F. S., Ho, D. L. L., Sampson, J. P., Wang, Q., Tam, T., & Skylar-Scott, M. A. (2024). A Visual, In-Expensive, and Wireless Capillary Rheometer for Characterizing Wholly-Cellular Bioinks. *Small*, *20*(17), 2304778. https://doi.org/10.1002/smll.202304778

Duh, Y. S., Kao, C. S., & Lee, W. L. W. (2017). Chemical kinetics on thermal decompositions of dicumyl peroxide studied by calorimetry: An overview. *Journal of Thermal Analysis and Calorimetry*, *127*(1), 1089–1098. https://doi.org/10.1007/s10973-016-5797-8

Faridah, A., & Widjanarko, S. B. (2013). Optimization of Multilevel Ethanol Leaching Process of Porang Flour (Amorphophallus Muelleri) Using Response Surface Methodology. *International Journal on Advanced Science Engineering and Information Technology*, *3*(2), 172. https://doi.org/10.18517/ijaseit.3.2.309

Feng, L., Pi, S., Zhu, W., Wang, X., & Xu, X. (2019). Nitrification and aerobic denitrification in solid phase denitrification systems with various biodegradable carriers for ammonium-contaminated water purification. *Journal of Chemical Technology & Biotechnology*, *94*(11), 3569–3577. https://doi.org/10.1002/jctb.6160

Genalda, M. S. S., & Udjiana, S. S. (2023). Pembuatan Plastik Biodegradable dari Pati Limbah Kulit Kentang (Solanum Tuberosum L.) dengan Penambahan Filler Kalsium Silikat. *DISTILAT: Jurnal Teknologi Separasi*, *7*(2), 320–327. https://doi.org/10.33795/distilat.v7i2.248

Gerland, F., Vaupel, T., Schomberg, T., & Wünsch, O. (2024). Analysing the Influence of Fibers on Fresh Concrete Rheometry by the Use of Numerical Simulation. *Construction Materials*, *4*(1), 128–153. https://doi.org/10.3390/constrmate*R40*10008

Ghozali, M., Sinaga, P. D. B., & Yolanda, S. M. (2016). Pengaruh Konsentrasi Anhidrida Maleat dan Peroksida Benzoil terhadap Persen Pencangkokan pada Sintesis Kompatibilizer Polyethylene-Graft-Maleic Anhydride. *Jurnal Kimia Dan Kemasan*, *38*(1), 41. https://doi.org/10.24817/jkk.v38i1.1977

Gianfreda, L. (2015). Enzymes of importance to rhizosphere processes. *Journal of Soil Science and Plant Nutrition*, *ahead*, 0–0. https://doi.org/10.4067/S0718-95162015005000022

Guzmán-Lagunes, F., Martínez-dlCruz, L., Wongsirichot, P., Winterburn, J., & Montiel, C. (2024). Production of polyhydroxybutyrate by coupled saccharification–fermentation of inulin. *Bioprocess and Biosystems Engineering*, *47*(1), 119–129. https://doi.org/10.1007/s00449-023-02953-7

Harrison, J. P., Boardman, C., O'Callaghan, K., Delort, A. M., & Song, J. (2018). Biodegradability standards for carrier bags and plastic films in aquatic environments: A critical review. *Royal Society Open Science*, *5*(5). https://doi.org/10.1098/rsos.171792

Harsojuwono, B. A., Mulyani, S., & Arnata, I. W. (2019). Characteristics of bio-plastic composites from the modified cassava starch and konjac glucomannan. *Journal of Applied Horticulture*, *21*(01), 13–19. https://doi.org/10.37855/jah.2019.v21i01.02

Henny, C., Suryono, T., Rohaningsih, D., Yoga, G., Sudarso, J., & Waluyo, A. (2023). The occurrence of microplastics in the surface water of several urban lakes in the Megacity of Jakarta. *IOP Conference Series: Earth and Environmental Science*, *1201*(1), 012023. https://doi.org/10.1088/1755-1315/1201/1/012023

Indriyani, S., Mastuti, R., & Roosdiana, A. (2010). Kandungan Oksalat Umbi Porang (Amorphophallus Muelleri Blume Syn. A. Oncophyllus Prain). *Berk. Penel. Hayati Edisi Khusus*, *4*(A), 99–102.

Irwanto, D., Pidhatika, B., Nurhajati, D. W., & Harjanto, S. (2020). Mechanical properties and crystallinity of linear low density polyethylene based biocomposite film. *Majalah Kulit, Karet, Dan Plastik*, *35*(2), 93. https://doi.org/10.20543/mkkp.v35i2.5624

Iskandar, N. F. (2024). High Purity Glucomannan After Ultrasonic-Assisted Extraction and A-Amylase Liquefaction of Porang (Amorphophallus Oncophyllus) Flour. *Food Research*, *8*(3), 242–251. https://doi.org/10.26656/fr.2017.8(3).212

Ismail Yasin. (2021). Sosialisasi Budidaya Tanaman Porang di Lahan Kosong pada Masyarakat dan Petani di Kecamatan Praya Barat Lombok Tengah. *Jurnal Siar Ilmuwan Tani*, *2*(1), 70–77. https://doi.org/10.29303/jsit.v2i1.30

Jamaludin, N. A., Mohd Fuzi, S. F. Z., Mohd Ghazali, M. I., Juki, M. I., Abdulaziz Al-Shalif, A. F., & Othman, N. (2023). Production of Polyhydroxyalkanoates (PHA) by Probiotic Bacteria Bacillus tequilensis for Potentially Used as Drug Carrier. *Malaysian Journal of Medicine and Health Sciences*, *19*(s9), 126–132. https://doi.org/10.47836/mjmhs.19.s9.19

Jeon, J. M., Park, S. J., Choi, T. R., Park, J. H., Yang, Y. H., & Yoon, J. J. (2021). Biodegradation of polyethylene and polypropylene by Lysinibacillus species JJY0216 isolated from soil grove. *Polymer Degradation and Stability*, *191*. https://doi.org/10.1016/j.polymdegradstab.2021.109662

Jessica, D. D., Nurainy, F., & Nawansih, O. (2024). Karakteristik Biodegradable Film Berbasis Selulosa Bungkil Inti Sawit (BIS) dengan Variasi Konsentrasi Plasticizer Gliserol dan Filler Glukomanan. *Jurnal Agroindustri Berkelanjutan*, *3*(2).

Johns, J., & Rao, V. (2009). Mechanical Properties and Swelling Behavior of Cross-Linked Natural Rubber/Chitosan Blends. *International Journal of Polymer Analysis and Characterization*, *14*(6), 508–526. https://doi.org/10.1080/10236660903072797

Karadimas, D., Garner, E., & Seay, J. (2023). A sustainable approach to plastic waste management in the Global South. *Cambridge Prisms: Plastics*, *1*, e4. https://doi.org/10.1017/plc.2023.5

Keithley, J. K., Swanson, B., Mikolaitis, S. L., Demeo, M., Zeller, J. M., Fogg, L., & Adamji, J. (2013). Safety and efficacy of glucomannan for weight loss in overweight and moderately obese adults. *Journal of Obesity*, *2013*. https://doi.org/10.1155/2013/610908

Khodijah, S., & Tobing, J. M. L. (2023). Tinjauan Plastik Biodegradable dari Limbah Tanaman Pangan sebagai Kantong Plastik Mudah Terurai. *TEKNOTAN*, *17*(1), 21. https://doi.org/10.24198/jt.vol17n1.3

Khotimah, K., Ridlo, A., & Suryono, C. A. (2022). Sifat Fisik dan Mekanik Bioplastik Komposit dari Alginat dan Karagenan. *Journal of Marine Research*, *11*(3), 409–419. https://doi.org/10.14710/jmr.v11i3.33865

Kumar, M., Xiong, X., He, M., Tsang, D. C. W., Gupta, J., Khan, E., Harrad, S., Hou, D., Ok, Y. S., & Bolan, N. S. (2020). Microplastics as pollutants in agricultural soils. *Environmental Pollution*, *265*, 114980. https://doi.org/10.1016/j.envpol.2020.114980

Kusumastuti, Y., Putri, N. R. E., Timotius, D., Syabani, M. W., & Rochmadi. (2020a). Effect of chitosan addition on the properties of low-density polyethylene blend as potential bioplastic. *Heliyon*, *6*(11). https://doi.org/10.1016/j.heliyon.2020.e05280

Kusumastuti, Y., Putri, N. R. E., Timotius, D., Syabani, Muh. W., & Rochmadi. (2020b). Effect of chitosan addition on the properties of low-density polyethylene blend as potential bioplastic. *Heliyon*, *6*(11), e05280. https://doi.org/10.1016/j.heliyon.2020.e05280

Landfester, K. (2003). Polymer Dispersions and Their Industrial Applications. In *Macromolecular Chemistry and Physics* (Vol. 204, Issue 3). https://doi.org/10.1002/macp.200390002

Lee, H. S., & Kim, J. D. (2012). Effect of a hybrid compatibilizer on the mechanical properties and interfacial tension of a ternary blend with polypropylene, poly(lactic acid), and a toughening modifier. *Polymer Composites*, *33*(7), 1154–1161. https://doi.org/10.1002/pc.22244

Leejarkpai, T., Suwanmanee, U., Rudeekit, Y., & Mungcharoen, T. (2011a). Biodegradable kinetics of plastics under controlled composting conditions. *Waste Management*, *31*(6), 1153–1161. https://doi.org/10.1016/j.wasman.2010.12.011

Leejarkpai, T., Suwanmanee, U., Rudeekit, Y., & Mungcharoen, T. (2011b). Biodegradable kinetics of plastics under controlled composting conditions. *Waste Management*, *31*(6), 1153–1161. https://doi.org/10.1016/j.wasman.2010.12.011

Lestari, K. D. (2023). Exploring the Antibacterial Potential of Konjac Glucomannan in Periodontitis: Animal and in Vitro Studies. *Medicina*, *59*(10), 1778. https://doi.org/10.3390/medicina59101778

Li, H., Zhang, X.-M., Zhu, S.-Y., Chen, W.-X., & Feng, L.-F. (2015). Preparation of polypropylene and polystyrene with □NCO and □$NH_2$ functional groups and their applications in polypropylene/polystyrene blends. *Polymer Engineering & Science*, *55*(3), 614–623. https://doi.org/10.1002/pen.23927

Li, S., Liu, H., & Zeng, W. (2011). Effect of cross-linked LLDPE/PP blend (LLDPE-PP) as compatibilizer on morphology, crystallization behavior and mechanical property of LLDPE/PP blends. *Journal of Applied Polymer Science*, *121*(5), 2614–2620. https://doi.org/10.1002/app.33998

Lisdayana, N., Larasati, D. A., Larasati, D. A., Yunira, E. N., & Yunira, E. N. (2019). Review: Teknologi Produksi Plastik Biodegradable dan Pemanfaatannya Sebagai Bahan Kemasan. *Jurnal Teknologi Agroindustri*, *11*(2), 38. https://doi.org/10.46559/tegi.v11i2.5801

MacLeod, M., Arp, H. P. H., Tekman, M. B., & Jahnke, A. (2021). The global threat from plastic pollution. *Science*, *373*(6550), 61–65. https://doi.org/10.1126/science.abg5433

Maddalwar, S., Kumar Nayak, K., Kumar, M., & Singh, L. (2021). Plant microbial fuel cell: Opportunities, challenges, and prospects. *Bioresource Technology*, *341*(July), 125772. https://doi.org/10.1016/j.biortech.2021.125772

Maghfirah, A. (2023). The Characterization of Porang Starch (Amorphophallus Oncophyllus) Biodegradable Plastic Using Sorbitol Plasticizer With the Glycerol Plasticizer Addition. *Journal of Physics Conference Series*, *2672*(1), 012001. https://doi.org/10.1088/1742-6596/2672/1/012001

Mangal, M., Rao, C. V., & Banerjee, T. (2023). Bioplastic: An eco-friendly alternative to non-biodegradable plastic. *Polymer International*, *72*(11), 984–996. https://doi.org/10.1002/pi.6555

Marsa, Y., Susanto, A. B., & Pramesti, R. (2023). Bioplastik dari Karagenan Kappaphycus alvarezii dengan Penambahan Carboxymethyl Chitosan dan Gliserol. *Buletin Oseanografi Marina*, *12*(1), 1–8. https://doi.org/10.14710/buloma.v12i1.42859

Maruf, M. (2019). Indonesia Response and Recent Development of Law and Policy in Addressing Marine Plastic Litter. *Journal of Indonesian Legal Studies*, *4*(2), 167–188. https://doi.org/10.15294/jils.v4i2.34757

Mitantsoa, J. T., Ravelonandro, P. H., Andrianony, F. A., & Andrianaivoravelona, R. R. (2023). *Elaboration and characterization of bioplastic films based on bitter cassava starch (Manihot esculenta) reinforced by chitosan extracted from crab (Shylla seratta) shells*. https://doi.org/10.48550/ARXIV.2310.15172

Mohanty, A. K., Misra, M., & Drzal, L. T. (Eds.). (2005). *Natural Fibers, Biopolymers, and Biocomposites* (0 ed.). CRC Press. https://doi.org/10.1201/9780203508206

Mohd Amin, A. M., Mohd Sauid, S., & Ku Hamid, K. H. (2015). Polymer-Starch Blend Biodegradable Plastics: An Overview. *Advanced Materials Research*, *1113*, 93–98. https://doi.org/10.4028/www.scientific.net/AMR.1113.93

Montgomery, D. C. (2017). *Design and analysis of experiments* (Ninth edition). John Wiley & Sons, Inc.

Nakatani, H., Narizumi, S., Okubo, S., Motokucho, S., Dao, A. T. N., Kim, H.-J., Yagi, M., Kyozuka, Y., Miura, S., & Josyula, K. V. (2023). *Study on the onset mechanism of bio-blister degradation of polyolefin by diatom attachment in seawater*. https://doi.org/10.21203/rs.3.rs-3297139/v1

Narancic, T., Verstichel, S., Reddy Chaganti, S., Morales-Gamez, L., Kenny, S. T., De Wilde, B., Babu Padamati, R., & O'Connor, K. E. (2018). Biodegradable Plastic Blends Create New Possibilities for End-of-Life Management of Plastics but They Are Not a Panacea for Plastic Pollution. *Environmental Science & Technology*, *52*(18), 10441–10452. https://doi.org/10.1021/acs.est.8b02963

Negro, M. J., Villa, F., Aibar, J., Alarcón, R., Ciria, P., Cristóbal, M. V., De, A., Martín, A. G., Muriedas, G. G., Labrador, C., Lacasta, C., Lezaún, J. A., Meco, R., Pardo, G., Solano, M. L., Torner, C., & Zaragoza, C. (n.d.). *PRODUCCIÓN Y GESTIÓN DEL COMPOST*.

Nurhajati, D. W., Indrajati, I. N., Mayasari, H. E., & Sholeh, M. (2019). Pengaruh penambahan pati tapioka terhadap sifat mekanis dan struktur komposit high density polyethylene. *Majalah Kulit, Karet, Dan Plastik*, *34*(2), 77. https://doi.org/10.20543/mkkp.v34i2.4138

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. https://doi.org/10.19184/bst.v11i3.38122

Odian, G. (2004). *Principles of polymerization* (4th ed). J. Wiley & sons.

Pang, A. L., Ismail, H., & Abu Bakar, A. (2016). Tensile Properties and Morphological Studies of Kenaf-Filled Linear Low Density Polyethylene/Poly(Vinyl Alcohol) (LLDPE/PVA/KNF) Composites: The Effects of KNF Loading. *Advanced Materials Research*, *1133*, 156–160. https://doi.org/10.4028/www.scientific.net/AMR.1133.156

Paprаćanin, E. (2022). Kinetic Parameters Estimation and Model Evaluation for the Aerobic Bioconversion Process of the Organic Fraction of Municipal Solid Waste. *Kemija u Industriji*, *3–4*. https://doi.org/10.15255/kui.2021.048

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*(January), 111091. https://doi.org/10.1016/j.jfoodeng.2022.111091

Pervaiz, M., Oakley, P., & Sain, M. (2014a). Extrusion of Thermoplastic Starch: Effect of "Green" and Common Polyethylene on the Hydrophobicity Characteristics. *Materials Sciences and Applications*, *05*(12), 845–856. https://doi.org/10.4236/msa.2014.512085

Pervaiz, M., Oakley, P., & Sain, M. (2014b). Extrusion of Thermoplastic Starch: Effect of "Green" and Common Polyethylene on the Hydrophobicity Characteristics. *Materials Sciences and Applications*, *05*(12), 845–856. https://doi.org/10.4236/msa.2014.512085

Pinzari, F., Zotti, M., De Mico, A., & Calvini, P. (2010a). Biodegradation of inorganic components in paper documents: Formation of calcium oxalate crystals as a consequence of Aspergillus terreus Thom growth. *International Biodeterioration & Biodegradation*, *64*(6), 499–505. https://doi.org/10.1016/j.ibiod.2010.06.001

Pinzari, F., Zotti, M., De Mico, A., & Calvini, P. (2010b). Biodegradation of inorganic components in paper documents: Formation of calcium oxalate crystals as a consequence of Aspergillus terreus Thom growth. *International Biodeterioration and Biodegradation*, *64*(6), 499–505. https://doi.org/10.1016/j.ibiod.2010.06.001

Priya, A. K., Jalil, A. A., Dutta, K., Rajendran, S., Vasseghian, Y., Karimi-Maleh, H., & Soto-Moscoso, M. (2022). Algal degradation of microplastic from the environment: Mechanism, challenges, and future prospects. *Algal Research*, *67*, 102848. https://doi.org/10.1016/j.algal.2022.102848

Purnavita, S., Subandriyo, D. Y., & Anggraeni, A. (2020). Penambahan Gliserol terhadap Karakteristik Bioplastik dari Komposit Pati Aren dan Glukomanan. *METANA*, *16*(1), 19–25. https://doi.org/10.14710/metana.v16i1.29977

Purohit, A., Cochereau, B., Sarkar, O., Rova, U., Christakopoulos, P., Antonopoulou, I., Villas-Boas, S., & Matsakas, L. (2025). Polyethylene biodegradation: A multifaceted approach. *Biotechnology Advances*, *82*, 108577. https://doi.org/10.1016/j.biotechadv.2025.108577

Rahayoe, S., Novianto, T. D., & Sedayu, B. B. (2025). Enhancing the Properties of Biodegradable Food Packaging Films Derived from Agar and Porang-Glucomannan (*Amorphophallus oncophyllus*) Blends. *Journal of Renewable Materials*, *13*(2), 385–400. https://doi.org/10.32604/jrm.2024.057313

Raj, M., Savaliya, R., Joshi, S., & Raj, L. (2018a). Studies on Blends of Modified Starch–LDPE. *Polymer Science, Series A*, *60*(6), 805–815. https://doi.org/10.1134/S0965545X18060081

Raj, M., Savaliya, R., Joshi, S., & Raj, L. (2018b). Studies on Blends of Modified Starch–LDPE. *Polymer Science - Series A*, *60*(6), 805–815. https://doi.org/10.1134/S0965545X18060081

Riadi, M. (2022). *Tanaman Porang (Morfologi, Syarat Tumbuh dan Budidaya)*. Kajianpustaka.Com. https://www.kajianpustaka.com/2022/05/tanaman-porang.html

Roberto Passador, F., Collà Ruvolo-Filho, A., & Pessan, L. A. (2016). Structural, thermal, and gas transport properties of HDPE/LLDPE blend-based nanocomposites using a mixture of HDPE- *g* -MA and LLDPE- *g* -MA as compatibilizer. *Polymer Engineering & Science*, *56*(7), 765–775. https://doi.org/10.1002/pen.24305

Rohmah, E. N., Maranata, S., Pius, D., & Ghozali, M. (2016). Pra Sintesa Compabilizer Abilizer LLDPE-g-MA. *Teknika: Jurnal Sains Dan Teknologi*, *12*(1), 16. https://doi.org/10.36055/tjst.v12i1.6612

Rosado, T., Gil, M., Mirão, J., Candeias, A., & Caldeira, A. T. (2013). Oxalate biofilm formation in mural paintings due to microorganisms – A comprehensive study. *International Biodeterioration & Biodegradation*, *85*, 1–7. https://doi.org/10.1016/j.ibiod.2013.06.013

Rossetti, I., Conte, F., & Ramis, G. (2021). Kinetic Modelling of Biodegradability Data of Commercial Polymers Obtained under Aerobic Composting Conditions. *Eng*, *2*(1), 54–68. https://doi.org/10.3390/eng2010005

Roy, P. K., Surekha, P., & Rajagopal, C. (2011). Surface oxidation of low-density polyethylene films to improve their susceptibility toward environmental degradation. *Journal of Applied Polymer Science*, *122*(4), 2765–2773. https://doi.org/10.1002/app.34097

Ruggero, F., Gori, R., & Lubello, C. (2019). Methodologies to assess biodegradation of bioplastics during aerobic composting and anaerobic digestion: A review. *Waste Management & Research*, *37*(10), 959–975. https://doi.org/10.1177/0734242X19854127

Rusdi, S., Nurrahman, I., Rizki, W. N., & Chafidz, A. (2022). *Jurnal Bahan Alam Terbarukan The Effect of Beeswax and Glycerol Addition on the Performance of Bioplastic Film Made of Konjac Glucomannan*. *11*(200), 100–107.

Sable, S., Mandal, D. K., Ahuja, S., & Bhunia, H. (2019a). Biodegradation kinetic modeling of oxo-biodegradable polypropylene/polylactide/nanoclay blends and composites under controlled composting conditions. *Journal of Environmental Management*, *249*(June). https://doi.org/10.1016/j.jenvman.2019.06.087

Sable, S., Mandal, D. K., Ahuja, S., & Bhunia, H. (2019b). Biodegradation kinetic modeling of oxo-biodegradable polypropylene/polylactide/nanoclay blends and composites under controlled composting conditions. *Journal of Environmental Management*, *249*, 109186. https://doi.org/10.1016/j.jenvman.2019.06.087

Safari, M., Otaegi, I., Aramburu, N., Guerrica-Echevarria, G., De Ilarduya, A., Sardon, H., & Müller, A. (2021). Synthesis, Structure, Crystallization and Mechanical Properties of

Isodimorphic PBS-ran-PCL Copolyesters. *Polymers*, *13*(14), 2263. https://doi.org/10.3390/polym13142263

Salinas, J., Carpena, V., Martínez-Gallardo, M. R., Segado, M., Estrella-González, M. J., Toribio, A. J., Jurado, M. M., López-González, J. A., Suárez-Estrella, F., & López, M. J. (2023). Development of plastic-degrading microbial consortia by induced selection in microcosms. *Frontiers in Microbiology*, *14*, 1143769. https://doi.org/10.3389/fmicb.2023.1143769

Sari, R. N., Nurhasni, N., & Yaqin, A. (2017). Green Synthesis Nanoparticle ZnO Sargassum Sp. Extract and the Products Charactheristic. *Jurnal Pengolahan Hasil Perikanan Indonesia*, *20*(2), 238. https://doi.org/10.17844/jphpi.v20i2.17905

Satriadi, H., Jonfita, B. V., & Listyawijayanti, N. S. (n.d.). *Characterization of Edible Film Made from Glucomannan Konjac Flour Modified Polyvinyl Alcohol (PVA) and Sorbitol as Plasticizer*.

Schmidt, J., Wei, R., Oeser, T., Silva, L. A. D. e. S., Breite, D., Schulze, A., & Zimmermann, W. (2017). Degradation of polyester polyurethane by bacterial polyester hydrolases. *Polymers*, *9*(2), 65. https://doi.org/10.3390/polym9020065

Selke, S., Auras, R., Nguyen, T. A., Castro Aguirre, E., Cheruvathur, R., & Liu, Y. (2015). Evaluation of Biodegradation-Promoting Additives for Plastics. *Environmental Science & Technology*, *49*(6), 3769–3777. https://doi.org/10.1021/es504258u

Shah, S. B., Huang, L., Hu, H., Wang, W., Ali, F., Xu, P., & Tang, H. (2019). Characterization of environmentally friendly degradation of hexabromocyclododecane by a Bacillus strain HBCD-sjtu. *International Biodeterioration & Biodegradation*, *145*, 104794. https://doi.org/10.1016/j.ibiod.2019.104794

Siswanti, S., Anandito, R. B. K., & Manuhara, G. J. (2009). Characterization of composite edible film from glucomanan of iles-iles (Amorphopallus muelleri) tuber and cornstarch. *Biofarmasi Journal of Natural Product Biochemistry*, *7*(1), 10–21. https://doi.org/10.13057/biofar/f070102

Sun, X.-Y., Xu, H., Wu, B.-H., Shen, S.-L., & Zhan, L.-T. (2023). A first-order kinetic model for simulating the aerobic degradation of municipal solid waste. *Journal of Environmental Management*, *329*, 117093. https://doi.org/10.1016/j.jenvman.2022.117093

Syahfriana, P., Muis, Y., & Wirjosentono, B. (2013). PEMANFAATAN SELULOSA MIKROKRISTAL DARI TANDAN KELAPA (Cocos nucifera L) SEBAGAI

PENGISI PLASTIK POLIPROPILENA YANG TERBIODEGRADASIKAN. *Jurnal Teknologi Kimia Unimal*, *2*(2), 80–89.

Tanjung, D. A., Jamarun, N., Arief, S., Aziz, H., Ritonga, A. H., & Isfa, B. (2022). Influence of LLDPE-g-MA on Mechanical Properties, Degradation Performance, and Water Absorption of Thermoplastic Sago Starch Blends. *Indonesian Journal of Chemistry*, *22*(1), 171–178. https://doi.org/10.22146/ijc.68558

Tokiwa, Y., Calabia, B. P., Ugwu, C. U., & Aiba, S. (2009). Biodegradability of Plastics. *International Journal of Molecular Sciences*, *10*(9), 3722–3742. https://doi.org/10.3390/ijms10093722

Tseng, J.-M., & Lin, Y.-F. (2011). Evaluation of a *tert* -Butyl Peroxybenzoate Runaway Reaction by Five Kinetic Models. *Industrial & Engineering Chemistry Research*, *50*(8), 4783–4787. https://doi.org/10.1021/ie100640t

Venkatesh, S., Mahboob, S., Govindarajan, M., Al-Ghanim, K. A., Ahmed, Z., Al-Mulhm, N., Gayathri, R., & Vijayalakshmi, S. (2021). Microbial degradation of plastics: Sustainable approach to tackling environmental threats facing big cities of the future. *Journal of King Saud University - Science*, *33*(3), 101362. https://doi.org/10.1016/j.jksus.2021.101362

Wang, X., Shi, Y., Graff, R. W., Cao, X., & Gao, H. (2016). Synthesis of Hyperbranched Polymers with High Molecular Weight in the Homopolymerization of Polymerizable Trithiocarbonate Transfer Agent without Thermal Initiator. *Macromolecules*, *49*(17), 6471–6479. https://doi.org/10.1021/acs.macromol.6b00994

Wardhani, D. H., Rahayu, L. H., Cahyono, H., & Ulya, H. L. (2020). Purification of Glucomannan of Porang (Amorphophallus Oncophyllus) Flour Using Combination of Isopropyl Alcohol and Ultrasound-Assisted Extraction. *Reaktor*, *20*(4), 203–209. https://doi.org/10.14710/reaktor.20.4.203-209

Wei, R., & Zimmermann, W. (2017). Microbial enzymes for the recycling of recalcitrant petroleum-based plastics: How far are we? *Microbial Biotechnology*, *10*(6), 1308–1322. https://doi.org/10.1111/1751-7915.12710

White, C., Laird, D. W., & Hughes, L. J. (2017). From carbon waste to carbon product: Converting oxalate to polyhydroxybutyrate using a mixed microbial culture. *Journal of Environmental Chemical Engineering*, *5*(3), 2362–2365. https://doi.org/10.1016/j.jece.2017.04.040

Widiastuti, E. S., Rosyidi, D., Radiati, L. E., & Purwadi, P. (2020). The Effect of Elephant Foot Yam (Amorphophallus campanulatus) Flour and Soybean Oil Addition on the

Physicochemical and Sensory Properties of Beef Sausage. *Jurnal Ilmu Dan Teknologi Hasil Ternak*, *15*(2), 119–130. https://doi.org/10.21776/ub.jitek.2020.015.02.7

Wu, W., Zhang, A., Van Klinken, R. D., Schrobback, P., & Muller, J. M. (2021). Consumer Trust in Food and the Food System: A Critical Review. *Foods*, *10*(10), 2490. https://doi.org/10.3390/foods10102490

Xu, Y., Thurber, C. M., Macosko, C. W., Lodge, T. P., & Hillmyer, M. A. (2014). Poly(methyl methacrylate)- *block* -polyethylene- *block* -poly(methyl methacrylate) Triblock Copolymers as Compatibilizers for Polyethylene/Poly(methyl methacrylate) Blends. *Industrial & Engineering Chemistry Research*, *53*(12), 4718–4725. https://doi.org/10.1021/ie4043196

Yang, J., Ching, Y. C., Julai J, S., Chuah, C. H., Nguyen, D. H., & Lin, P.-C. (2022). Comparative study on the properties of starch-based bioplastics incorporated with palm oil and epoxidized palm oil. *Polymers and Polymer Composites*, *30*, 09673911221087595. https://doi.org/10.1177/09673911221087595

Yanuriati, A., & Basir, D. (2020). Peningkatan Kelarutan Glukomanan Porang (Amorphophallus muelleri Blume) dengan Penggilingan Basah dan Kering. *agriTECH*, *40*(3), 223. https://doi.org/10.22146/agritech.43684

Yanuriati, A., Marseno, D. W., Rochmadi, & 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

Zhou, Y., Kumar, M., Sarsaiya, S., Sirohi, R., Awasthi, S. K., Sindhu, R., Binod, P., Pandey, A., Bolan, N. S., Zhang, Z., Singh, L., Kumar, S., & Awasthi, M. K. (2022a). Challenges and opportunities in bioremediation of micro-nano plastics: A review. *Science of The Total Environment*, *802*, 149823. https://doi.org/10.1016/j.scitotenv.2021.149823

Zhou, Y., Kumar, M., Sarsaiya, S., Sirohi, R., Awasthi, S. K., Sindhu, R., Binod, P., Pandey, A., Bolan, N. S., Zhang, Z., Singh, L., Kumar, S., & Awasthi, M. K. (2022b). Challenges and opportunities in bioremediation of micro-nano plastics: A review. *Science of the Total Environment*, *802*, 149823. https://doi.org/10.1016/j.scitotenv.2021.149823