

## DAFTAR PUSTAKA

- Abdurrozaq, M., 2015, *Sintesis dan Karakterisasi Plastik Biodegradable dari Campuran Glukomanan Porang (*Amorphophallus oncophyllus* Pr.) dan Pati Singkong (*Manihot esculenta*) dengan Plasticizer Gliserol*, Skripsi, Semarang: Departemen Kimia FMIPA Universitas Negeri Semarang.
- Admin, 2017, *Bioplastics*, diakses tanggal 25 April 2020, [bioplastics-future.eu/how-to-make-bioplastic/](http://bioplastics-future.eu/how-to-make-bioplastic/).
- Agassi, A., 2019, *Bioplastic*, Wikipedia, The Free Encyclopedia, diakses tanggal 9 Juni 2020, [id.wikipedia.org/w/index.php?title=Bioplastik&oldid=15407136](https://id.wikipedia.org/w/index.php?title=Bioplastik&oldid=15407136).
- Al-Hassan, A. A., & Norziah, M. H., 2012, *Starch-gelatin edible films: Water vapor permeability and mechanical properties as affected by plasticizers*, *Journal of Food Hydrocolloids*, 26(1), 108–117.
- Apriyani, M., & Sedyadi, E., 2015, *Synthesis and Characterization of Biodegradable Plastic from Cassava Starch and Alovera Extract with Glycerol Plasticizer*, *Basic Science*, 4(2), 145–152.
- Ashter, S. A., 2016, *Introduction to Bioplastics Engineering*. In D. Jackson (Ed.), *Introduction to Bioplastics Engineering*.
- Avérous, L., 2004, *Biodegradable multiphase systems based on plasticized starch: A review*, *Journal of Macromolecular Science - Polymer Reviews*, 44(3), 231–274.
- Badan Standarisasi Nasional, 2011. *Klasifikasi dan Standar Mutu Tepung Tapioka*. Jakarta.
- Bahmid, N. A., 2014, *Pengembangan Nanofiber Selulosa Asetat dari Selulosa Tandan Kosong Kelapa Sawit untuk Pembuatan Bioplastik*, Thesis, Bogor: Sekolah Pasca Sarjana IPB.
- Ban, W., Song, J., Argyropoulos, D. S., & Lucia, L. A., 2006, *Influence of natural biomaterials on the elastic properties of starch-derived films: An optimization study*, *Industrial and Engineering Chemistry Research*, Vol. 45, hal. 627–633.

- Bemiller, J. N., 2008, Hydrocolloids. Gluten-free cereal products and beverages Rheological, 203-215.
- BeMiller, J. N., 2019, Inulin and Konjac Glucomannan, Carbohydrate Chemistry for Food Scientists, 253–259.
- Cheong, K. S., Balasubramaniam, J. R., Hung, Y. P., Chuong, W. S., & Amartalingam, R., 2010, *Development of Biodegradable Plastic Composite Blends Based on Sago Derived Starch and Natural Rubber*, *Pertanika Journal of Science and Technology*, 18(2), 411–420.
- Chung, D. D. L., 2010, *Composite Materials, Science and Applications*, 2 ed, Buffalo, NY: Springer.
- Darni, Y., Sitorus, T. M., & Hanif, M., 2014, *Produksi Bioplastik dari Sorgum dan Selulosa Secara Termoplastik*, *Jurnal Rekayasa Kimia & Lingkungan*, 10(2), 55–62.
- Darni, Y., & Utami, H., 2010, *Study of the manufacture and characteristics of mechanical properties and hydrophobicity of bio-plastics from sorghum starch*, *Journal of Chemical and Environmental Engineering*, 7(2), 1–1.
- Deny, S., 2019, *Konsumsi Plastik Indonesia Lebih Rendah dari Korea dan Jerman*, diakses tanggal 9 Juni 2020, [liputan6.com/bisnis/read/4110454/konsumsi-plastik-indonesia-lebih-rendah-dari-korea-dan-jerman](http://liputan6.com/bisnis/read/4110454/konsumsi-plastik-indonesia-lebih-rendah-dari-korea-dan-jerman).
- Echlin, P., 2009, *Handbook of Sample Preparation for Scanning Electron Microscopy and X-Ray Microanalysis*, Cambridge: Springer.
- Edhirej, A., Sapuan, S. M., Jawaid, M., & Zahari, N. I., 2016, *Preparation and Characterization of Cassava Starch/Peel Composite Film*, *Polymer Composites*, 37(1), 915–924.
- Gómez-Guillén, M. C., Pérez-Mateos, M., Gómez-Estaca, J., López-Caballero, E., Giménez, B., & Montero, P., 2009, *Fish gelatin: a renewable material for developing active biodegradable films*, *Trends in Food Science and Technology*, 20(1), 3–16.
- Gunawan, B., & Azhari, C. D., 1979, *Karakteristik Spektrometri IR dan Scanning Electron Microscopy (SEM) Sensor Gas dari Bahan Polimer Poly Ethelyn Glycol (PEG)*, *Fakultas Teknik Universitas Muria Kudus*, 1–17.

- Gunorubon, J., & Kekpugile, K., 2012, *Modification of Cassava Starch for Industrial Uses*, International Journal of Engineering and Technology, 2(6), 913–919.
- Hadi, D. T., 2017, *Analisis Sifat Kimia dan Fungsional Pasta Pati Singkong Termodifikasi dengan Fermentasi Saccharomyces cerevisiae*, Skripsi, Lampung : Fakultas Pertanian, Universitas Lampung.
- Harsojuwono, B. A., & Arnata, I. W., 2015, *Physical and mechanical characteristics of bio-plastic (Study of tapioca concentration and comparison of plasticizer mixture)*, Scientific Media for Food Technology, 1–6.
- Harsojuwono, B. A., Arnata, I. W., & Mulyani, S., 2017, *Biodegradable Plastic Characteristics of Cassava Starch Modified in Variations Temperature and Drying Time*, Journal of Chemical and Process Engineering Research, 49, 1–5.
- Harsojuwono, B. A., Arnata, I. W., & Mulyani, S., 2018, *Bio-Plastic Characteristics From Cassava Starch Modified In Variations The Temperature And pH Of Gelatinization*, Research Journal of Pharmaceutical Biological and Chemical Sciences, 9(2), 290–296.
- 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(1), 13–19.
- Harsojuwono, B. A., Mulyani, S., & Arnata, I. W., 2019, *Characteristics of Composites Bioplastic Glucomannan and Maizena in the Variation of Temperature and Gelatinization Time*, Journal of Agro-Industry Engineering and Management, 7(3), 468–477.
- Haruna, M. H., Wang, Y., & Pang, J., 2019, *Konjac glucomannan-based composite films fabricated in the presence of carnauba wax emulsion: hydrophobicity, mechanical and microstructural properties evaluation*, Journal of Food Science and Technology, 56(11), 5138–5145.
- Haryanto, & Titani, F. R., 2017, *Bioplastic from Tapioca and Maizena Starch*, Techno, 18(1), 1–6.

- Henrique, C. M., Teófilo, R. F., Sabino, L., Ferreira, M. M. C., & Cereda, M. P., 2007, *Classification of cassava starch films by physicochemical properties and water vapor permeability quantification by FTIR and PLS*, Journal of Food Science, 72(4), 1–6.
- Hershey, C. H., 2003, *Manihot esculenta Crantz*, In Medicinal Plants of the World, Volume 1 (hal. 669–691).
- Hidayat, B., Kalsum, N., & Surfiana., 2009, *Characterization of Modified Cassava Flour Processed Through Partial Pregelatinisation Method*, Journal of Industrial Technology and Agricultural Products, 14(2), 148–159.
- Hidayat, A., 2017, *Industri bioplastik belum berani produksi besar*, diakses tanggal 9 Juni 2020, [industri.kontan.co.id/news/industri-bioplastik-belum-berani-produksi-besar](http://industri.kontan.co.id/news/industri-bioplastik-belum-berani-produksi-besar).
- Ho, S., 2019, *WAVE Startup Creates Emission-Free Bio Plastic Bags From Cassava That Dissolve In Water*, diakses tanggal 29 April 2020, [greenqueen.com.hk/wave-startup-creates-emission-free-bio-plastic-bags-from-cassava-that-dissolve-in-water/](http://greenqueen.com.hk/wave-startup-creates-emission-free-bio-plastic-bags-from-cassava-that-dissolve-in-water/).
- Inagri, 2019, *Singkong Sumber Pati yang Banyak Manfaatnya*, diakses tanggal 1 Mei 2020, [jurnal.inagri.asia/2019/07/21/singkong-sumber-pati-yang-banyak-manfaatnya/](http://jurnal.inagri.asia/2019/07/21/singkong-sumber-pati-yang-banyak-manfaatnya/).
- Incidencematrix, 2017, *Voodoo Lilly and Sarracenias*, diakses tanggal 1 Mei 2020, [commons.wikimedia.org/wiki/File:Voodoo\\_Lilly\\_and\\_Sarracenias\\_\(14034850593\).jpg](https://commons.wikimedia.org/wiki/File:Voodoo_Lilly_and_Sarracenias_(14034850593).jpg)
- Jian, W., Wu, H., Wu, L., Wu, Y., Jia, L., Pang, J., & Sun, Y. M., 2016, *Effect of molecular characteristics of Konjac glucomannan on gelling and rheological properties of Tilapia myofibrillar protein*, Journal of Carbohydrate Polymers, 150, 21–31.
- Khan, H., & Marya., 2018, *Konjac (Amorphophallus konjac)*. In Nonvitamin and Nonmineral Nutritional Supplements.
- Krishnamurthy, A., & Amritkumar, P., 2019, *Synthesis and characterization of eco-friendly bioplastic from low-cost plant resources*. SN Applied Sciences a Springer Nature Journal, 1(11), 1–13.

- Kristianingrum, S., 2016, *Handout: Infrared Spectroscopy, IR*. Yogyakarta: Universitas Negeri Yogyakarta.
- Kühnl, S., 2019, *Glucomannan Derived from The Konjac Tuber*, diakses tanggal 1 Mei 2020, [goerlich-pharma.com/en/glucomannan-derived-from-the-konjac-tuber/](http://goerlich-pharma.com/en/glucomannan-derived-from-the-konjac-tuber/).
- Lai Hoong Chenf, A. A. K. and C. C., 2005, *Food Engineering and Physical Properties Effects of High Pressure on Texture and Microstructure of Sea Bass ( Dicentrarchus labrax L.) Fillets*, Science, Vol. 70.
- Leuangsukrer, M., Phupoksakul, T., Tananuwong, K., Borompichaichartkul, C., & Janjarasskul, T., 2014, *Properties of konjac glucomannan-whey protein isolate blend films*, LWT - Food Science and Technology, 59(1), 94–100.
- Liu, Q., Liu, J., Zhang, P., & He, S., 2014, *Root and Tuber Crops*, Encyclopedia of Agriculture and Food Systems, 5, 46–61.
- Malinconico, M., 2017, *Soil Degradable Bioplastics for a Sustainable Modern Agriculture*, Pozzuoli Italy: Springer Nature.
- Marx, S., 2019, *Cassava as Feedstock for Ethanol Production: A Global Perspective*. In Bioethanol Production from Food Crops.
- Maulana, F., Mawarani, L. J., Sawitri, D., Arief, J., & Hakim, R., 2016, *Pengaruh Komposisi Glukomanan-Tapioka Plastik Ramah Lingkungan*, hal. 1–6. Surabaya: Jurusan Teknik Fisika, Fakultas Teknologi Industri, Institut Teknologi Sepuluh Nopember (ITS).
- Maulida, Siagian, M., & Tarigan, P., 2016, *Production of Starch Based Bioplastic from Cassava Peel Reinforced with Microcrystalline Cellulose Avicel PH101 Using Sorbitol as Plasticizer*, Journal of Physics: Conference Series, 710(1).
- Mbey, J. A., Hoppe, S., & Thomas, F., 2012, *Cassava starch-kaolinite composite film. Effect of clay content and clay modification on film properties*, Carbohydrate Polymers, 88(1), 213–222.
- Test Methode Technote Plastics, 2016, *ASTM D638 Tensile Properties of Plastics*, MTS Systems Corporation.

- Muhaimin, M., 2014, *Fabrication of Composite Nanofiber from Sisal Nanocellulose with Polyvinyl Alcohol by Using Electrospinning Methode*, Tesis, Yogyakarta: Departemen Fisika FMIPA UGM.
- Nicol, A. W., 1975, *Physicochemical Methods of Mineral Analysis*, Birmingham, England : Plenum Press.
- Pegg, A. M., 2012, *The application of natural hydrocolloids to foods and beverages*, In Natural Food Additives, Ingredients and Flavourings.
- Pilla, S., 2011, *Handbook of Bioplastics and Biocomposites Engineering Applications*, USA: Scrivener.
- Pradipta, I. M. D., & Mawarani, L. J., 2012, *The manufacture and characterization of environmentally friendly polymers based on glucomannan porang tuber*, Journal of Science and Art Pomits, 1(1), 1–6.
- Primaningrum, D.A., & Sari D.R., 2014, *Pembuatan Plastik Biodegradabel dari Tepung Porang (Amorphophallus Muelleri Bleum) dengan Metode Solution Casting*, Diploma Tesis, Surabaya : Institut Teknologi Sepuluh November.
- Putri, S. S., 2011, *Pembuatan CMC dengan Media Reaksi Campuran Larutan Propanol-Ethanol dari Eceng Gondok*, Tesis, Palembang: Politeknik Negeri Sriwijaya.
- Ritchie, H dan M. Roser, 2018, *Plastic Pollution*, Diakses pada 30 Januari 2020, [ourworldindata.org/plastic-pollution](http://ourworldindata.org/plastic-pollution).
- Santana, R. F., Bonomo, R. C. F., Gandolfi, O. R. R., Rodrigues, L. B., Santos, L. S., dos Santos Pires, A. C., Veloso, C. M., 2018, *Characterization of starch-based bioplastics from jackfruit seed plasticized with glycerol*. Journal of Food Science and Technology, 55(1), 278–286.
- Saputro, A. N. C., & Ovita, A. L., 2017, *Synthesis and Characterization of Bioplastic from Chitosan-Ganyong Starch (Canna edulis)*, Journal of Chemistry and Chemistry Education, 2(1), 13–21.
- Setiawan, I., 2018, *Karakterisasi komposit bioplastik berbasis pati kulit singkong dengan nanosilika sekam padi*, Tesis, Bogor : Institut Pertanian Bogor.

- Simbolon, H., 2019, *Bioplastik, Plastik Ramah Lingkungan dari Singkong*, diakses tanggal 9 Juni 2020, [liputan6.com/regional/read/3925727/bioplastik-plastik-ramah-lingkungan-dari-singkong](http://liputan6.com/regional/read/3925727/bioplastik-plastik-ramah-lingkungan-dari-singkong).
- Siswanti, 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.
- Sugiyono, Ratih P. dan Didah N.F., 2009, *Modifikasi Pati Garut (marantha arundinacea) dengan Perlakuan Siklus Pemanasan Suhu Tinggi Pendinginan (autoclaving-cooling cycling) Untuk Menghasilkan Pati Resisten Tipe III*, *Journal Teknologi dan Industri Pangan*, Vol. XX No.1 hal. 17-24.
- Sujatno, A., Salam, R., Dimiyati, A., & Bandriyana., 2015, *Studi Scanning Electron Microscopy (SEM) untuk Karakterisasi Proses Oksidasi Paduan Zirkonium*, *Jurnal Forum Nuklir (JFN)*, 9, 44–50.
- Sumartono, N. W., Handayani, F., Desiriana, R., Novitasari, W., & Hulfa, D. S. (2015). *Sintesis dan Karakterisasi Bioplastik berbasis Alang-Alang (Imperata Cylindrica(L.)) dengan Penambahan Kitosan, Gliserol, dan Asam Oleat*. *Pelita - Jurnal Penelitian Mahasiswa UNY*, X(2), 13–25.
- Tokiwa Y, P. C. Bueaventurada, U. U. Charles and A. Seiichi, 2005, *Biodegradability of Plastics*, *International Journal of Molecular Science*, 10: 3722-3742.
- Ul-Hamid, A., 2018, *A Beginners' Guide to Scanning Electron Microscopy*, Springer.
- University of Wisconsin - Madison, 2020, diakses tanggal 3 Mei 2020, [chem.wisc.edu/deptfiles/OrgLab/handouts/Simplified%20IR%20Correlation%20Chart.pdf](http://chem.wisc.edu/deptfiles/OrgLab/handouts/Simplified%20IR%20Correlation%20Chart.pdf).
- Wahyuningtiyas, N. E., & Suryanto, H., 2018, *Properties of Cassava Starch based Bioplastic Reinforced by Nanoclay*, *Journal of Mechanical Engineering Science and Technology*, 2(1), 20–26.

- Wang, Y., Liu, J., Li, Q., Wang, Y., & Wang, C., 2015, *Two natural glucomannan polymers, from Konjac and Bletilla, as bioactive materials for pharmaceutical applications*, Biotechnology Letters, 37(1), 1–8.
- Wurzburg, O.B., 1989, *Modified Starch : Properties and Uses*, CRC Press. Inc. Boca Raton, Florida.
- Yang, K., Wang, Z., Nakajima, T., Nishinari, K., & Brenner, T., 2013, *The effect of degradation on  $\kappa$ -carrageenan/locust bean gum/konjac glucomannan gels at acidic pH*, Journal of Carbohydrate Polymers, 98(1), 744–749.
- Yu, L., Dean, K., & Li, L., 2006, *Polymer blends and composites from renewable resources*, Progress in Polymer Science (Oxford), 31(6), 576–602.