

DAFTAR PUSTAKA

- Abel, O.M., Chinelo, S., dan Chidioka, R., 2021, Enhancing Cassava Peels Starch as Feedstock for Biodegradable Plastic, *J. Mater. Environ. Sci.*, 12 (02), 169–182.
- Abidin, N.D.Z., Azhar, N.S., Sarip, M.N., Hamid, H.A., dan Nasir, N.A.H.A., 2021, Production of Bioplastic from Cassava Peel with Different Concentrations of Glycerol and CaCO₃ as Filler,. In, *Proceeding 4th International Sciences, Technology & Engineering Conference (ISTEC)*. 8 - 10 April 2020, Penang.
- Abusrafa, A.E., Habib, S., Krupa, I., Ouederni, M., dan Popelka, A., 2019, Modification of Polyethylene by RF Plasma in Different/Mixture Gases, *Coatings*, 9 (145), 1–24.
- Armynah, B., Anugrahwidya, R., dan Tahir, D., 2022, Composite Cassava Starch/Chitosan/Pineapple Leaf Fiber (PALF)/Zinc Oxide (ZnO): Bioplastics with High Mechanical Properties and Faster Degradation in Soil and Seawater, *Int. J. Biol. Macromol.*, 213, 814–823.
- Arolkar, G.A., Salgo, M.J., Kelkar-Mane, V., dan Deshmukh, R.R., 2015, The Study of Air-plasma Treatment on Corn Starch/Poly(ϵ -caprolactone) Films, *Polym. Degrad. Stab.*, 120, 262–272.
- Atika, V., 2017, Kualitas Pewarnaan Ekstrak Kayu Tegeran (*Cudrania javanensis*) pada Batik, *Dinamika Kerajinan dan Batik*, 34 (1), 11–18.
- Atika, V., Arta, T.K., Lestari, D.W., Haerudin, A., dan Fitriani, A., 2019, Effect of Different Solvent on Tegeran (*Cudrania javanensis*) Wood Extract Dyeing Quality on Silk Batik,. In, *Proceeding 3th Indonesian Textile Conference*. Juli 2019, Bandung.
- Banura, S., Thirumdas, R., Kaur, A., Deshmukh, R.R., dan Annapure, U.S., 2018, Modification of Starch Using Low Pressure Radio Frequency Air Plasma, *Lwt*, 89, 719–724.
- Bie, P., Li, X., Xie, F., Chen, L., Zhang, B., dan Li, L., 2016, Supramolecular Structure and Thermal Behavior of Cassava Starch Treated by Oxygen and Helium Glow-plasmas, *Innov. Food Sci. Emerg. Technol.*, 34, 336–343.
- Blackburn, R.S., Bechtold, T., dan John, P., 2009, The Development of Indigo Reduction Methods and Pre-Reduced Indigo Products, *Color. Technol.*, 125 (4), 193–207.
- Božič, M., Kokol, V., dan Guebitz, G.M., 2009, Indigo Dyeing of Polyamide Using Enzymes for Dye Reduction, *Text. Res. J.*, 79 (10), 895–907.
- Chen, C., Ogino, A., Wang, X., dan Nagatsu, M., 2011, Oxygen Functionalization of Multiwall Carbon Nanotubes by Ar/H₂O Plasma Treatment, *Diam. Relat. Mater.*, 20 (2), 153–156.

- Chen, T.F., Siow, K.S., Ng, P.Y., Nai, M.H., Lim, C.T., dan Yeop Majlis, B., 2016, Ageing Properties of Polyurethane Methacrylate and Off-stoichiometry Thiol-ene Polymers After Nitrogen and Argon Plasma Treatment, *J. Appl. Polym. Sci.*, 133 (42), 1–12.
- Chytrosz-Wrobel, P., Golda-Cepa, M., Stodolak-Zych, E., Rysz, J., dan Kotarba, A., 2023, Effect of Oxygen Plasma-Treatment On Surface Functional Groups, Wettability, and Nanotopography Features of Medically Relevant Polymers With Various Crystallinities, *Appl. Surf. Sci. Adv.*, 18 (100497), 1–8.
- Demina, T.S., Piskarev, M.S., Romanova, O.A., Gatin, A.K., Senatulin, B.R., Skryleva, E.A., Zharikova, T.M., Gilman, A.B., Kuznetsov, A.A., Akopova, T.A., dan Timashev, P.S., 2020, Plasma Treatment of Poly(ethylene terephthalate) Films and Chitosan Deposition: DC-vs. AC-discharge, *Materials (Basel)*, 13 (3), 1–10.
- Ezeoha, S.L., 2013, Production of Biodegradable Plastic Packaging Film from Cassava Starch, *IOSR Journal of Engineering*, 3 (10), 14–20.
- Fazeli, M., Florez, J.P., dan Simão, R.A., 2019, Improvement in Adhesion of Cellulose Fibers to the Thermoplastic Starch Matrix by Plasma Treatment Modification, *Compos. Part B Eng.*, 163, 207–216.
- Flores, S., Famá, L., Rojas, A.M., Goyanes, S., dan Gerschenson, L., 2007, Physical Properties of Tapioca-Starch Edible Films: Influence of Filmmaking and Potassium Sorbate, *Food Res. Int.*, 40 (2), 257–265.
- Ghobeira, R., Esbah Tabaei, P.S., Morent, R., dan De Geyter, N., 2022, Chemical Characterization of Plasma-activated Polymeric Surfaces Via XPS Analysis: A review, *Surfaces and Interfaces*, 31 (102087), 1–24.
- Gholamiyan, H., Ashouri, J., dan Ahmadi, Peyman Hosseinpourpia, R., 2022, Surface Wettability and Coating Performance of Plasma-Treated Wood-Based Composite Panels, *Coatings*, 12 (1894), 1–13.
- Guo, Z., Gou, Q., Yang, L., Yu, Q. li, dan Han, L., 2022, Dielectric Barrier Discharge Plasma: A Green Method to Change Structure of Potato Starch and Improve Physicochemical Properties of Potato Starch Films, *Food Chem.*, 370 (130992), 1–10.
- Gupta, R.K., Guha, P., dan Srivastav, P.P., 2023, Effect of High Voltage Dielectric Barrier Discharge (DBD) Atmospheric Cold Plasma Treatment on Physicochemical and Functional Properties of taro (*Colocasia esculenta*) Starch, *Int. J. Biol. Macromol.*, 253 (P2), 126772.
- Harsojuwono, B.A., Arnata, I.W., dan Mulyani, S., 2017, Biodegradable Plastic Characteristics of Cassava Starch Modified in Variations Temperature and Drying Time, *J. Chem. Process Eng. Res.*, 49, 1–5.
- He, X., Chen, G., He, Z., Li, J., Liu, Y., Wang, T., Huang, J., Zhang, L., dan Ai, X., 2022, Oxidation of Glow Discharge Polymer Films, *J. Non. Cryst. Solids*,

595 (121828), 1–12.

- Heidemann, H.M., Dotto, M.E.R., Laurindo, J.B., Carciofi, B.A.M., dan Costa, C., 2019, Cold Plasma Treatment to Improve The Adhesion of Cassava Starch Films Onto PCL and PLA Surface, *Colloids Surf. A: Physicochem. Eng. Asp.*, 580 (123739), 1–9.
- Homola, T., Matoušek, J., Hergelová, B., Kormunda, M., Wu, L.Y.L., dan Černák, M., 2012, Activation of Poly(methyl methacrylate) Surfaces by Atmospheric Pressure Plasma, *Polym. Degrad. Stab.*, 97 (6), 886–892.
- Hoque, M., McDonagh, C., Tiwari, B.K., Kerry, J.P., dan Pathania, S., 2022, Effect of Cold Plasma Treatment on the Packaging Properties of Biopolymer-Based Films: A Review, *Appl. Sci.*, 12 (1346), 1–32.
- Inagaki, N., Narushim, K., Tuchida, N., dan Miyazaki, K., 2004, Surface Characterization of Plasma-modified Poly(ethylene terephthalate) Film Surfaces, *J. Polym. Sci. Part B Polym. Phys.*, 42 (20), 3727–3740.
- Jangid, A.K., Pooja, D., dan Kulhari, H., 2018, Determination of Solubility, Stability and Degradation Kinetics of Morin Hydrate in Physiological Solutions, *RSC Adv.*, 8 (50), 28836–28842.
- Jelil, R.A., 2015, A review of Low-Temperature Plasma Treatment of Textile Materials, *J. Mater. Sci.*, 50 (18), 5913–5943.
- Ju, S.G. dan Roh, J., 2020, Manufacturing Regenerated Woody Dyed Fiber from Waste MDF Using Natural Dyes, *J. Korean Wood Sci. Technol.*, 48 (2), 154–165.
- Junkar, I., Vesel, A., Cvelbar, U., Mozetič, M., dan Strnad, S., 2010, Influence of Oxygen and Nitrogen Plasma Treatment on Polyethylene Terephthalate (PET) Polymers, *Vacuum*, 84 (1), 83–85.
- Kampeerapappun, P., Phattararittigul, T., Jitrong, S., dan Kullachod, D., 2011, Effect of Chitosan and Mordants on Dyeability of Cotton Fabrics with *Ruellia Tuberosa* Linn, *Chiang Mai J. Sci.*, 38 (1), 95–104.
- Khorram, S., Zakerhamidi, M.S., dan Karimzadeh, Z., 2015, Polarity Functions' Characterization and The Mechanism of Starch Modification by DC glow Discharge Plasma, *Carbohydr. Polym.*, 127, 72–78.
- Kim, Jongwoon, Mauchauffé, R., Kim, D., Kim, Jaewon, dan Moon, S.Y., 2020, Mechanism Study of Atmospheric-Pressure Plasma Treatment of Carbon Fiber Reinforced Polymers for Adhesion Improvement, *Surf. Coatings Technol.*, 393 (125841), 1–8.
- Kohli, D., Garg, S., dan Jana, A.K., 2012, Synthesis of Cross-linked Starch Based Polymers for Sorption of Organic Pollutants From Aqueous Solutions, *Indian Chem. Eng.*, 54 (3), 210–222.
- Kongkiatpaiboon, S., Tungsukruthai, P., Sriyakool, K., Pansuksan, K., Tunsirikongkon, A., dan Pandith, H., 2017, Determination of Morin in

Maclura cochinchinensis Heartwood by HPLC, *J. Chromatogr. Sci.*, 55 (3), 346–350.

- Kwon, Y.A., 2014, Effects of Oxygen Plasma Treatment on the Wettability of Polypropylene Fabrics, *Fash. Text. Res. J.*, 16 (3), 456–461.
- Lee, H., Yamaguchi, K., Nagaishi, T., Murai, M., Kim, M., Wei, K., Zhang, K.Q., dan Kim, I.S., 2017, Enhancement of Mechanical Properties of Polymeric Nanofibers by Controlling Crystallization Behavior Using a Simple Freezing/Thawing Process, *RSC Adv.*, 7 (69), 43994–44000.
- Lee, J., Kang, M.H., Lee, K.B., dan Lee, Y., 2013, Characterization of Natural Dyes and Traditional Korean Silk Fabric by Surface Analytical Techniques, *Materials (Basel)*, 6 (5), 2007–2025.
- Lee, Y.M., You, J., Kim, M., Kim, T.A., Lee, S.S., Bang, J., dan Park, J.H., 2019, Highly Improved Interfacial Affinity in Carbon Fiber-Reinforced Polymer Composites Via Oxygen and Nitrogen Plasma-assisted Mechanochemistry, *Compos. Part B Eng.*, 165, 725–732.
- Li, Y., Wu, C., Bai, Y., Liu, S., Yuan, C., Ding, T., dan Hu, Y., 2019, Effect of Glow Discharge Plasma on Surface Modification of Chitosan Film, *Int. J. Biol. Macromol.*, 138, 340–348.
- Liu, L., Yang, Q., dan Shen, J., 2015, Correlation Between Porosity and Electrical-mechanical Properties of Carbon Nanotube Buckypaper with Various Porosities, *J. Nanomater.*, 2015, 1–9.
- Liu, Y., Liang, Z., Liao, L., dan Xiong, J., 2022, Effect of Sisal Fiber on Retrogradation and Structural Characteristics of Thermoplastic Cassava Starch, *Polym. Polym. Compos.*, 30, 1–12.
- Lomelí-Ramírez, M.G., Barrios-Guzmán, A.J., García-Enriquez, S., de Jesús Rivera-Prado, J., dan Manríquez-González, R., 2014, Chemical and Mechanical Evaluation of Bio-composites Based on Thermoplastic Starch and Wood Particles Prepared by Thermal Compression, *BioResources*, 9 (2), 2960–2974.
- Maroofi, A., Navab Safa, N., dan Ghomi, H., 2020, Atmospheric Air Plasma Jet for Improvement of Paint Adhesion to Aluminium Surface in Industrial Applications, *Int. J. Adhes. Adhes.*, 98, 102554.
- Matoušek, J., Bendlová, N., Kolská, Z., Čapková, P., Pavlík, J., dan Kormunda, M., 2016, Time Dependence of the Surface Chemistry of the Plasma Treated Polypropylene Powder, *Adv. Powder Technol.*, 27 (1), 262–267.
- Michels, L., Richter, A., Chellappan, R.K., Røst, H.I., Behsen, A., Wells, K.H., Leal, L., Santana, V., Blawid, R., da Silva, G.J., Cooil, S.P., Wells, J.W., dan Blawid, S., 2021, Electronic and Structural Properties of The Natural Dyes Curcumin, Bixin and Indigo, *RSC Adv.*, 11 (23), 14169–14177.
- Mohammed, Z., Jeelani, S., dan Rangari, V.K., 2022, Effect of Low-Temperature Plasma Treatment on Starch-Based Biochar and Its Reinforcement for Three-

- Dimensional Printed Polypropylene Biocomposites, *ACS Omega*, 7 (44), 39636–39647.
- Mrsic, I., Bäuerle, T., Ulitzsch, S., Lorenz, G., Rebner, K., Kandelbauer, A., dan Chassé, T., 2021, Oxygen Plasma Surface Treatment of Polymer Films—Pellethane 55DE and EPR-g-VTMS, *Appl. Surf. Sci.*, 536 (147782), 1–11.
- Okoshi, M., Thumsorn, S., dan Hamada, H., 2016, Flame Retardancy of Bio-base Plastics, *Energy Procedia*, 89, 38–44.
- Oluwasina, Olugbenga O., Akinyele, B.P., Olusegun, S.J., Oluwasina, Olayinka O., dan Mohallem, N.D.S., 2021, Evaluation of the effects of additives on the properties of starch-based bioplastic film, *SN Appl. Sci.*, 3 (421), 1–12.
- Özeren, H.D., Guivier, M., Olsson, R.T., Nilsson, F., dan Hedenqvist, M.S., 2020, Ranking Plasticizers for Polymers with Atomistic Simulations: PVT, Mechanical Properties, and The Role of Hydrogen Bonding in Thermoplastic Starch, *ACS Appl. Polym. Mater.*, 2 (5), 2016–2026.
- Pankaj, S.K., Bueno-Ferrer, C., Misra, N.N., O’Neill, L., Tiwari, B.K., Bourke, P., dan Cullen, P.J., 2015, Dielectric Barrier Discharge Atmospheric Air Plasma Treatment of High Amylose Corn Starch Films, *Lwt*, 63 (2), 1076–1082.
- Puliyalil, H., Filipič, G., dan Cvelbar, U., 2019, Selective Plasma Etching of Polymers and Polymer Matrix Composites, *Non-Thermal Plasma Technol. Polym. Mater.*, 241–259.
- Purnama, H., Hidayati, N., Safitri, D.S., dan Rahmawati, S., 2017, Effect of Initial Treatment in The Preparation of Natural Indigo Dye from *Indigofera tinctoria*, In, *Proceeding The 3rd International Conference on Engineering, Technology and Industrial Application (ICETIA)*. 7-8 December 2016, Surakarta.
- Quispetera, C.A.O., Olivera, C.A.C., Flores, J.W.V., Benites-Alfaro, E., dan Flores, Y.V., 2021, Bioplastic Made from *Manihot esculenta* (Cassava) and *Ficus benjamina* As an Ecological Alternative for Food Products, *Chem. Eng. Trans.*, 87, 67–72.
- Rahayuningsih, E., Marfitania, T., Marfitania, T., Sapto Pamungkas, M., Pamungkas, M.S., Siti Fatimah, W., dan Fatimah, W.S., 2022, Optimization of Cotton Fabrics Dyeing Process Using Various Natural Dye Extracts, *J. Rekayasa Proses*, 16 (1), 58.
- Rayatnia, M. dan Foroutan, G., 2022, Surface Functionalization of Polypropylene Nanoparticles in a Pulsed Low Pressure air Plasma Discharge, *Surf. Sci.*, 717 (121987), 1–11.
- Reza, M. dan Farahani, Z., 2015, Integrated Micro Pem Fuel Cell With Self-Regulated Hydrogen Generation From Ammonia Borane, *Tesis*, Department of Mechanical Engineering Purdue University, Indianapolis.
- Rjeb, M., Labzour, A., Rjeb, A., Sayouri, S., Idrissi, M.C. El, Massey, S., Adnot, A., Roy, D., dan Society, C.M., 2004, Contribution To the Study By X-Ray

Photoelectron Spectroscopy of the Natural Aging of the Polypropylene, *Moroccan J. Condens. Matter*, 5 (2), 168–172.

- Romani, V.P., Olsen, B., Pinto Collares, M., Meireles Oliveira, J.R., Prentice-Hernández, C., dan Guimarães Martins, V., 2019, Improvement of Fish Protein Films Properties for Food Packaging Through Glow Discharge Plasma Application, *Food Hydrocoll.*, 87, 970–976.
- Saikhao, L., Setthayanond, J., Karpkird, T., dan Suwanruji, P., 2022, Mao Berry As A Green Reducing Agent in Natural Indigo Dyeing on Cotton Fabrics, *J. Text. Inst.*, 113 (8), 1538–1544.
- Sethi, V., Verma, C., Mukhopadhyay, S., Gupta, A., dan Gupta, B., 2023, Oxidative Functionalization of Polypropylene Mesh Surface by Radio Frequency Plasma, *Surfaces and Interfaces*, 37 (102656), 1–10.
- Shafqat, A., Tahir, A., Mahmood, A., Tabinda, A.B., Yasar, A., dan Pugazhendhi, A., 2020, A Review on Environmental Significance Carbon Foot Prints of Starch Based Bio-plastic: A Substitute of Conventional Plastics, *Biocatal. Agric. Biotechnol.*, 27 (101540), 1–8.
- Sheikhi, Z., Hosseini, S.M., Khani, M.R., Farhoodi, M., Abdolmaleki, K., Shokri, B., Shojaee-Aliabadi, S., dan Mirmoghtadaie, L., 2021, Treatment of Starch Films with a Glow Discharge Plasma in Air and O₂ at Low Pressure, *Food Sci. Technol. Int.*, 27 (3), 276–285.
- Shen, C., Song, G., dan Tang, G., 2018, A Facile Modification Method of Activated Carbon by Spark Discharge of Atmospheric Pressure Plasma jets to Improve Its Adsorption Performance of Methylene Blue, *Surf. Coatings Technol.*, 354, 126–133.
- Sofyan, S., Failisnur, F., dan Silfia, S., 2018, Pengaruh Jenis dan Metode Mordan terhadap Kualitas Pewarnaan Kain Katun Menggunakan Limbah Kulit Jengkol (*Archidendron jiringa*), *J. Litbang Ind.*, 8 (1), 1–9.
- Song, A.Y., Oh, Y.A., Roh, S.H., Kim, J.H., dan Min, S.C., 2016, Cold Oxygen Plasma Treatments for the Improvement of the Physicochemical and Biodegradable Properties of Polylactic Acid Films for Food Packaging, *J. Food Sci.*, 81 (1), E86–E96.
- Sudheesh, C., Sunooj, K.V., Sinha, S.K., George, J., Kumar, S., Murugesan, P., Arumugam, S., Ashwath Kumar, K., dan Sajeew Kumar, V.A., 2019, Impact of Energetic Neutral Nitrogen Atoms Created by Glow Discharge Air Plasma On the Physico-chemical and Rheological Properties of Kithul Starch, *Food Chem.*, 294, 194–202.
- Sun, X., Bao, J., Li, K., Argyle, M.D., Tan, G., Adidharma, H., Zhang, K., Fan, M., dan Ning, P., 2021, Advance in Using Plasma Technology for Modification or Fabrication of Carbon-Based Materials and Their Applications in Environmental, Material, and Energy Fields, *Adv. Funct. Mater.*, 31 (2006287), 1–26.

- Suprpto, 2018, *Pengembangan Teknologi Plasma Untuk Nitridasi*, Pustaka Pelajar, Yogyakarta.
- Swargiary, A. dan Ronghang, B., 2013, Screening of Phytochemical Constituents, Antioxidant and Antibacterial Properties of Methanolic Bark Extracts of *Maclura Cochinchinensis* (Lour.) Corner, *Int. J. Pharma Bio Sci.*, 4 (4), 449–459.
- Tabaei, P.S.E., Ghobeira, R., Cools, P., Rezaei, F., Nikiforov, A., Morent, R., dan De Geyter, N., 2020, Comparative Study Between In-plasma and Post-plasma Chemical Processes Occurring at the Surface of UHMWPE Subjected to Medium Pressure Ar and N₂ Plasma Activation, *Polymer (Guildf)*., 193 (122383), 1–13.
- Teklemedhin, T.B. dan Gopalakrishnan, L.H., 2018, Environmental Friendly Dyeing of Silk Fabric with Natural Dye Extracted from *Cassia singueana* Plant, *J. Text. Sci. Eng.*, 01 (S3), 1–6.
- Teli, M.D., Sheikh, J., dan Shastrakar, P., 2013, Exploratory Investigation of Chitosan as Mordant for Eco-Friendly Antibacterial Printing of Cotton with Natural Dyes, *J. Text.*, 2013, 1–6.
- Terpiłowski, K., Wiącek, A.E., dan Jurak, M., 2018, Influence of Nitrogen Plasma Treatment on The Wettability of Polyetheretherketone and Deposited Chitosan Layers, *Adv. Polym. Technol.*, 37 (6), 1557–1569.
- Tran, T.N., Mai, B.T., Setti, C., dan Athanassiou, A., 2020, Transparent Bioplastic Derived from CO₂-Based Polymer Functionalized with Oregano Waste Extract toward Active Food Packaging, *ACS Appl. Mater. Interfaces*, 12 (41), 46667–46677.
- Tubić, A., Vujić, M., Gvoić, V., Agbaba, J., Vasiljević, S., Cveticanin, L., Vukelić, Đ., dan Prica, M., 2023, Sorption Potential of Microplastics for Azo- and Phthalocyanine Printing Dyes, *Dye. Pigment.*, 209 (110884), 1–11.
- Vesel, A., Mozetic, M., dan Zalar, A., 2007, XPS study of oxygen plasma activated PET, *Vacuum*, 82, 248–251.
- Vuorema, A., John, P., Keskitalo, M., Kulandainathan, M.A., dan Marken, F., 2008, Electrochemical and Sonochemical Monitoring of Indigo Reduction by Glucose, *Dye. Pigment.*, 76 (2), 542–549.
- Wieland, F., Bruch, R., Bergmann, M., Partel, S., Urban, G.A., dan Dincer, C., 2020, Enhanced Protein Immobilization on Polymers-A Plasma Surface Activation Study, *Polymers (Basel)*., 12 (1), 1–12.
- Yang, P., Shen, A., Cao, Y., Zhu, Z., Liu, X., Zhou, Z., Chen, M., dan Zhou, X., 2023, Effects of Air-plasma Treatment in Enhancing The Mechanical Properties of Oriented Strand Boards, *Int. J. Adhes. Adhes.*, 125 (103435), 1–9.
- Zhang, H., Su, Z., dan Wang, X., 2022, Starch-Based Rehealable and Degradable Bioplastic Enabled by Dynamic Imine Chemistry, *ACS Sustain. Chem. Eng.*, 10 (26), 8650–8657.