

DAFTAR PUSTAKA

- Azura, 2015. Pembuatan Bioetanol dari Bagas Batang Sorgum Manis Melalui Proses Delignifikasi oleh NaOH. Bandung. IPB press.
- Baruah J, Nath BK, Sharma R, Kumar S, Deka RC, Baruah DC, et al. Recent trends in the pretreatment of lignocellulosic biomass for value-added products. *Front Energy Res* 2018;6:141
- Budiman, Arief. 2021. *Distilasi Teori dan Pengendalian Operasi*. Yogyakarta: UGM PRESS.
- Boateng AA, Hicks KB, Flores RA, dan Gutsol A. 2007. Pyrolysis of hull-enriched By products from the scarification of hulled barley (*Hordeum vulgare* L.). *Journal of analytical and applied pyrolysis*, 78(1): 95-103
- Chung BY, Lee JT, Bai HW, Kim UJ, Bae HJ, Wi SG, dan Cho JY. 2012. Enhanced enzymatic hydrolysis of poplar bark by combined use of gamma ray and dilute acid for bioethanol production. *Radiation Physics and Chemistry* 81: 1003–1007.
- Dyartanti, Endah R., Enny, K.A., Fadilah, F. and Safitri, H. 2011. Pengaruh Konsentrasi Katalis Enzim Glukoamilasi (*Aspergillus Niger*) Terhadap Konsentrasi Produk Glukosa pada Kinetika Reaksi Simultan Sakarifikasi dan Fermentasi Bioetanol Sorgum (*Sorgum bicolor* L.). *ekuilibrium*. 10(1), pp.43-48.
- Gushally Firdi, M., 2020. Analisa Biaya Produksi Bioetanol Dari Nira Batang Sorgum Dengan Variasi Kapasitas Produksi Per Bacht Menggunakan Metode BEP (Doctoral Dissertation, Universitas Mataram).
- Harvey, L. M., McNeil, B. 2008. *Practical Fermentation Technology*. United Kingdom: Wiley.
- Herrera A, Téllez-Luis SJ, Gonza'lez-Cabriales JJ, Ramí'rez JA, Vazquez M. Effect of the hydrochloric acid concentration on the hydrolysis of sorghum straw at atmospheric pressure. *J Food Eng* 2004;63:103e9.
- Hidayat, M.R. 2013. Teknologi Pretreatment Bahan Lignoselulosa dalam Proses Produksi Bioetanol. *Biopropal Industri*. 4(1), pp.33-48.

- Hongshen Li. 2020. Optimization of Continuous Solid-State Distillation Process for Cost-Efffective Bioethanol Production. Article of energies.
- Jasman, J., Selendria, H.R., Sudirman, S. and Ardan, A.S., 2018, December. Pengaruh lama inkubasi dengan *Trichoderma Reesei* terhadap konsentrasi gula terlarut dalam bubur batang sorgum manis. In Prosiding Seminar Nasional Kimia dan Pendidikan Kimia (Vol. 2018, No. Back Issue, pp. 15-18).
- Julius. 2019. Penentuan kandungan sukrosa pada gula aren dengan metode enzimatik. Chemistry Progress. 6 (1).
- Kementerian ESDM RI. 2021. Forum Kehumasan Dewan Energi Nasional: Menuju Bauran Energi Nasional Tahun 2025. ebtke.esdm.go.id. Diakses pada 21 Agustus 2021.
- Kementerian ESDM RI. 2020. Handbook of Energy and Economic Statistic of Indonesia. www.esdm.go.id. Diakses pada 19 Agustus 2021.
- Kovacs K, Macrelli S, Szakacs G, dan Zacchi G. 2009. Enzymatic hydrolysis of steam-pretreated lignocellulosic materials with *Trichoderma atroviride* enzymes produced in-house. Biotechnology for biofuels, 2(1), 14.
- Kumar, A, L.K. Singh And S. Ghosh. 2009. Bioconversion of Lignocellulosic Fraction of Waterhyacinth (*Eichhornia crassipes*) Hemicellulose Acid Hydrolysate to Ethanol by *Pichia stipitis*. Bioresource Technology. 100. 3293-3297.
- Li, M., Yan, G., Bhalla, A., Maldonado-Pereira, L., Russell, P.R., Ding, S.Y., Mullet, J.E. and Hodge, D.B., 2018. Physical fractionation of sweet sorghum and forage/energy sorghum for optimal processing in a biorefinery. Industrial Crops and Products, 124, pp.607-616.
- LIPI, 2008. Kebijakan Pengembangan Bahan Bakar Nabati (Bioetanol). Jurnal Ekonomi dan Pembangunan, p. 40 .
- Mais U, Esteghlalian AR, Saddler JN, dan Mansfield SD. 2002. Enhancing the enzymatic hydrolysis of cellulosic materials using simultaneous ball milling. Applied biochemistry and biotechnology, 98(1): 815-832.
- Manon, R. A. 2012. Progress in Energy and Combustion Science. Trends In Bioconverison of lingniselulose : Biofuel, pp. 522-550.

- Marx, S., Ndaba, B., Chiyanzu, I. and Schabort, C., 2014. Fuel ethanol production from sweet sorghum bagasse using microwave irradiation. *Biomass and bioenergy*, 65, pp.145-150.
- Megawati. 2015. *Bioetanol generasi Kedua*. Yogyakarta: Graha Ilmu.
- Mehmood S, Gulfraz M, Rana NF, Ahmad A, Ahring BK, Minhas N, et al. Ethanol production from sorghum bicolor using both separate and simultaneous saccharification and fermentation in batch and fed batch systems. *Afr J Biotechnol* 2009;8:2857e65.
- Misson M, Haron R, Kamaroddin MFA, dan Amin NAS. 2009. Pretreatment of empty palm fruit bunch for production of chemicals via catalytic pyrolysis. *Bioresource technology*, 100(11): 2867- 2873.
- M Syukur, S., 2021. *Merevolusi Revolusi Hijau*. Bandung: IPB Press.
- Narendra, Naik. 2017. Dilute acid pretreatment of sorghum biomass to maximize the hemicellulose hydrolysis with minimized levels of fermentative inhibitors for bioethanol production. *article of biotech* Page 2 of 12
- Oliver, B., 2010. *Ionic Liquids and Catalysis : Recent progress from Knowledge to Applications*. *Applied Catalysis A General* , pp. 1-56.
- Pabendon, M.B., Sarungallo, R.S. and Mas'ud, S., 2012. Pemanfaatan nira batang, bagas, dan biji sorgum manis sebagai bahan baku bioetanol. *Jurnal Penelitian Pertanian Tanaman Pangan*, 31(3), pp.180-187.
- Pandebesie, E.S. and Kartini, A.M., 2016. Produksi Bioetanol dari Batang Sorghum bicolor (L.) Moench dengan Saccharomyces cerevisiae dan Konsorsium s. cerevisiae-Pichia stipitis. *Jurnal Purifikasi*, 16(2).
- Pontoh, J. 2007. *Analisa Komponen Kimia dalam Gula dan Nira Aren*. Laporan pada Yayasan Masarang. Tomohon.
- Quintero, J., 2011. Production of Bioethanol from Agro-industrial residues as feedstocks. *Biofuel Alternative feedstocks*, pp. -.
- Ria, Kusuma. 2011. Penelitian Fermentasi Alkohol. <http://kusumaworld25.blogspot.com/2011/07/laporan-penelitian-fermentasi-alkohol.html> (diakses pada tanggal, 22 Maret 2012)

- Rorke, Daniel . and Gueguim Kana, E.B. 2017. Kinetics of bioethanol production from waste sorghum leaves using *Saccharomyces cerevisiae* BY4743. *Fermentation*, 3(2), p.19.
- Rolz, C., de León, R. and de Montenegro, A.L.M. 2019. Co-production of ethanol and biodiesel from sweet sorghum juice in two consecutive fermentation steps. *Electronic Journal of Biotechnology*, 41, pp.13-21.
- Sanchez, C., 2009. Ligniselulose residues Biodegradation and Bioconversion by fungi. *Biotechnol*, pp. 185-194.
- Samsuri, M., Gozan, M., dkk. 2007. Pemanfaatan selulosa bagas untuk produksi etanol melalui sakarifikasi dan fermentasi serentak dengan enzim xylanase.
- Sarungallo, R. S., Bulu, L., & Djonny, M. 2018. Uji Kinerja Alat Destilasi dengan Variasi Temperatur Kolom untuk Pemurnian Bioetanol Berbasis Nira Sorgum Manis. In *Seminar Nasional Hasil Penelitian & Pengabdian Kepada Masyarakat (SNP2M)*.
- Satria, W., 2016. Proses Delignifikasi dan Hidrolisis Lignoselulosa Ampas Tebu Menggunakan Sistem Cairan Ionik Kolin Klorida.
- Sebayang, A.H., Masjuki, H.H., Ong, H.C., Dharma, S., Silitonga, A.S., Kusumo, F. and Milano, J. 2017. Optimization of bioethanol production from sorghum grains using artificial neural networks integrated with ant colony. *Industrial crops and products*, 97, pp.146-155.
- Simon JTL, Jose' AR, Manuel V. Modelling of the hydrolysis of sorghum straw at atmospheric pressure. *J Sci Food Agric* 2002;82:505e12.
- Siregar, M.R., Yusuf, H., dan Wahyunanto, A.N. 2014. Pengaruh Konsentrasi NaOH Dalam Lama Waktu Pemanasan Microwave Dalam Proses Pretreatment Terhadap Kadar Lignoselulosa *Chlorella vulgaris*. *Jurnal Teknologi Pertanian*. Vol 15. No 2.
- Soeprijanto, Indriawati, K. and Abdulgani, N. 2017. Enzymatic Hydrolysis of Sorghum Bagasse to Readily Fermentable Sugar for Bioethanol. *Jurnal Rekayasa Proses*, 8(1), pp.20-24.
- Sun S, Sun S, Cao X, Sun R. The role of pretreatment in improving the enzymatic hydrolysis of lignocellulosic materials. *Bioresour Technol* 2016;199:49–58.

- Sunarya, U., Fadhilah, M.H., dan Kurniawan, E. 2017. Perancangan Dan Implementasi Mppt Charge Controller Pada Panel Surya Menggunakan Mikrokontroler Untuk Pengisian Baterai Sepeda Listrik. *eProceedings of Engineering*. 4(3).
- Sutrisno, T., Anggono, W., Lay, K. and Simanjuntak, M.E. 2021. Optimasi Parameter Proses Pembuatan Bioetanol Sorgum dan Pengaruh Terhadap Unjuk Kerja Motor Bensin Otopro, 16(2), pp.39-43.
- Timilsena YP, Abeywickrama CJ, Rakshit SK, dan Brosse N. 2012. Effect of different pretreatments on delignification pattern and enzymatic hydrolysability of miscanthus, oil palm biomass and typha grass. *Bioresource Technology*, in press.
- Tomas, P. 2011. Pretreatment Technologies for Lignocellulose to Bioethanol Conversion. *Alternative Feedstock and Conversion Process* , pp. 149-178.
- Tri Lestari, E. D. M. R. A. 2019. *Teknologi Pengelolaan Lahan Pasca Tambang*. Sidoarjo, Jawa Timur : Uwais Inspirasi Indonesia.
- Vazquez M, Oliva M, Téllez-Luis SJ, Ramírez JA. Hydrolysis of sorghum straw using phosphoric acid: evaluation of furfural production. *Bioresour Technol* 2007;98:3053e60.
- Verina J.2019. *Peta Jalan Litbang Bahan Bakar Nabari Menuju Mandiri Energi*. Bandung: IPB press
- Viola, E. 2008. Ethanol from eel grass via steam explosion and enzymatic hydrolysis. *Biomass Bioenergy*, pp. 613-618.
- Widianto, D., Arofatullah, A., Yuwono, T. and Dwidya, I. 2010. Ethanol production by fermentation of various sweet-stalk sorghum juices using various yeast strains. *Indonesian Journal of Biotechnology*, 15(2), pp.87-93.
- Xu J, Thomsen MH, dan Thomsen AB. 2010. Feasibility of Hydrothermal Pretreatment On Maize Silage for Bioethanol Production. *Applied biochemistry and biotechnology*, 162(1): 33-42.
- Yunus R, Salleh SF, Abdullah N, dan Biak DRA. 2010. Effect of ultrasonic pretreatment on low temperature acid hydrolysis of oil palm empty fruit bunch. *Bioresource technology*, 101(24): 9792-9796.