

DAFTAR PUSTAKA

- Alam, M.I., Sudipta, D., Dutta, S., dan Saha, B. (2012). "Solid-Acid and Ionic-Liquid Catalyzed One-Pot Transformation of Biorenewable Substrates Into A Platform Chemical and A Promising Biofuel". *The Royal Society of Chemistry*. 2, 6890–6896.
- Alonso, D.M., Bond J.Q., dan Dumestic, J.A. (2012). "Catalytic Conversion of Biomass to Biofuels". *Green Chemistry*, (12),1493-1513.
- Amarasekara, A.S dan Ebede, C.C. (2009). "Zinc Chloride Mediated Degradation of Cellulose At 200 °C and Identification of The Products". *Bioresour Technol.* 100, (21), 5301-5304.
- Badan Pusat Statistik Republik Indonesia. (2012). *Tabel Luas Panen-Produktivitas- Produksi Tanaman Padi Seluruh Provinsi*, Jakarta: Badan Pusat Statistik Republik Indonesia.
- Binder, J.B. dan Raines, R.T. (2009). "Simple Chemical Transformation of Lignocellulosic Biomass into Furans for Fuels and Chemicals". *Journal of The American Chemical Society*. 131, (5), 1979-1985.
- Bishop, C.A. (2007). "Vacuum deposition onto webs, films, and foils". p. 165. ISBN 0-8155-1535-9.
- Caratzoulas, S., dan Vlachos, D.G. (2011). "Converting Fructose To 5-Hydroxymethylfurfural: A Quantum Mechanics/Molecular Mechanics Study Of The Mechanism And Energetic". *Carbohydrate Research*. 346,664–672.
- Collins, M. J., Jr, C.C., and Matthews, N.C. (2001). Unpublished work.
- Crawford RL. (1981). "Lignin biodegradation and transformation". New York, NY: John Wiley and Sons.
- Darnoko, P., Guritno, A., Sugiharto, dan S, Sugesty., (1995). "Pembuatan Pulp dari Tandan Kosong Sawit dengan Penambahan Surfaktan". *Jurnal Penelitian Kelapa Sawit*. 3 (1): 75-87.
- Datta, A. K., & Anantheswaran, R. C. (2001). *Handbook of microwave technology for food applications*. New York: Marcel Dekker.
- De Pomerai, D. I., Smith, B., Dawe, A., North, K., Smith, T., Archer, D. B., Duce, I., R, Jones, D., dan Candido, E. P. M. *FEBS Lett.* **2003**, 543, 93.
- Deng, T., Cui, X., Qi, Y., Wang, Y., Hou, X., dan Zhu, Y. (2012). "Conversion of Carbohydrates into 5-Hydroxymethylfurfural Catalyzed by ZnCl₂ in Water". *The Royal Society of Chemistry*. **48**, 5494-5496.

Henny Dikarinawati, 2014

Penggunaan Radiasi Microwave Pada Konversi Selulosa Menjadi 5- Idroksimetilfurfural (HMF) Dari Biomassa Jerami Padi Dengan Media ZnCl₂ Dan Katalis CrCl₃

Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

- Dewi, F. (2012). "Konversi Selulosa Menjadi 5- Hydroxymethylfurfural Sebagai Senyawa Prekursor DMF, LA, DFF, DFA, dari Biomassa Jerami Beras Menggunakan Katalis CrCl_3 ". Skripsi pada Jurusan Pendidikan Kimia FPMIPA UPI Bandung: tidak diterbitkan.
- Dull, G. (1985). *Chem. Ztg.* 19,216.
- Dutta, S.S., De , Md., Imteyaz, I., Mahdi, M. A., dan Basudeb, Saha. (2011). "Direct Conversion Of Cellulose And Lignocellulosic Biomass Into Chemicals And Biofuel With Metal Chloride Catalysts". *Journal of Catalysis.* 288. 8-15.
- Dwi, A.L. (2013). "Konversi Selulosa dari Biomassa Jerami Padi Menjadi 5-Hidroksimetilfurfural (HMF) Sebagai Prekursor Biofuel Menggunakan Media ZnCl_2 dan Katalis CrCl_3 ". Skripsi pada Jurusan Pendidikan Kimia FPMIPA UPI Bandung: tidak diterbitkan.
- Eka Wati, I. (2003). *Pengaruh Pemberian Inokulum Terhadap Kecepatan Pengomposan Jerami Padi.* Jurnal Penelitian Pertanian Lembaga Penelitian Fakultas Pertanian Universitas Muhammadiyah Malang: tidak diterbitkan.
- Firdaus, F.H.Z. (2012). *Studi Pendahuluan Reaksi Konversi Selulosa dari Biomassa Jerami Padi (Rice Straw) Menjadi 5-Hydroxymethylfurfural (HMF) Sebagai Prekursor Biofuel 2,5-Dimethylfuran (DMF) Menggunakan Radiasi Microwave.* Skripsi pada Program Studi Kimia, Fakultas Pendidikan Matematika dan Ilmu Pengetahuan Alam Universitas Pendidikan Indonesia, Bandung: tidak diterbitkan.
- Fischer, S., H, Leipner., K, Th_mmler., E, Brendler., and J. Peters. (2003). *Cellulose.* 10, 227 –236.
- Gabriel, C., Gabriel, S., Grant, E. H., Halstead, B. S. J. & Mingos, D. M. P. (1998). "Dielectric parameters relevant to microwave dielectric heating". *Chemical Society Reviews*, 27 (May 1998) 213-223, 0306-0012.
- Guo, J., dan Lua, A.C. (2000). *Preparation of activated carbons from oil-palm-stone chars by microwave-induced carbon dioxide activation.* *Carbon* 38, 1985– 1993.
- Harmsen, P., Huijgen, W., Bermudez, L., dan Bakker, R. (2010). *Literature Review of Physical and Chemical Pretreatment Processes for Lignocellulosic Biomass*, Biosynergy.
- Hayes, B. L. (2002). *"Microwave Synthesis: Chemistry at the Speed of Light"*. CEM Publishing Matthews, NC. 2002.
- Heradewi. (2007). "Isolasi Lignin Dari Lindi Hitam Proses Pemasakan Organosolv Serat Tandan Kosong Kelapa Sawit (TKKS)". Institut Pertanian Bogor: Tidak Diterbitkan.

- Hu, X., Wang, Z., Sun, J., Liao, X., dan Chen, F. (2007). "Mathematical Modelling On Thin Layer Microwave Drying Of Apple Pomace With and Without Hot Air Predrying". *Journal Of Food Engineering*, 80 (2): 536-544.
- Isroi. (2009). "Pemanfaatan Jerami Padi Sebagai Pupuk Organik In Situ untuk Mengurangi Penggunaan Pupuk Kimia dan Subsidi Pupuk". Makalah pada konvensi 7 Mei, Fakultas Pertanian Universitas Gadjah Mada, Yogyakarta: Tidak Diterbitkan.
- Jan van Putten, R., C. van der Waal, J., Jong, E., Rasrendra, C., Heeres, H., dan G. de Vries, J. (2013). "Hydroxymethylfurfural, A Versatile Platform Chemical Made from Renewable Resources". *Journal of The American Chemical Society*. 113, 1499–1597.
- Kappe, C. (2005). "Microwave dielectric heating in synthetic organic chemistry". *Chem Soc Rev*, 37, 1127e39.
- Krzan, A., Kunaver, M., 2006. "Microwave heating in wood liquefaction". *J. Appl. Polym. Sci.* 101, 1051–1056.
- Kasli. (2008). *Pembuatan Pupuk Hayati Hasil Dekomposisi Beberapa Limbah Organik dengan Dekomposernya*. Program Studi Agroekoteknologi, Fakultas Pertanian, Universitas Andalas, Padang: tidak diterbitkan.
- K, Freudenberg., & A.C. Nash (eds) (1968). *Constitution and Biosynthesis of Lignin*. Berlin: Springer-Verlag.
- Kim, S., dan Dale, B.E. (2004). "Global Potential Bioethanol Production From Wasted Crops and Crop Residues". *Elsevier: Biomass and Bioenergy*. 26, 361 – 375.
- Lebo, Stuart E., Gargulak, J.D., and McNally, T.J. (2001). "Lignin". *Kirk-Othmer Encyclopedia of Chemical Technology*. John Wiley & Sons, Inc. doi:10.1002/0471238961.12090714120914.a01.pub2. Retrieved 2007-10-14.
- Li, Changzhi., Zongbao, K., Zhao, H.C., Aiqin, W., Tao, Zhang. (2010) *Microwave Promoted Conversion Of Concentrated Fructose Into 5-Hydroxymethylfurfural In Ionic Liquids In The Absence Of Catalysts*. China: Dalian Institute Of Chemical Physics.
- Lynd, L.R., Cushman, J.H., Nichols, R.J., dan Wyman, C.E. (1991). "Fuel ethanol from cellulosic biomass". *Science* 251:1318–1323.
- Maynard, B. J. (2000). " Sonochemistry" . *Chemistry*, Summer 2000, 17.
- Mosier, N., Wyman, C., Dale, B., Elander, R., Lee, Y.Y., Holtzapple, M., dan Ladisch, M. (2005). "Features of promising technologies for pretreatment of lignocellulosic biomass". *Bioresour Technol.* 96: 673-686.

- Ooshima H., K. Aso., dan Y. Harano. (1984). "Microwave treatment of cellulosic materials for their enzymatic hydrolysis". *Biotechnology Letter*, 6 (5): 289-94.
- Orth, A.B., Royse, D.J., dan M, Tien. (1993). "Ubiquity of lignin degrading peroxidases among various wood-degrading fungi". *Appl Environ Microbiol* 59:4017-4023.
- Oscar, M. (2009). "Dilute Sulfuric Acid Pretreatment of Switchgrass in Microwave Reactor for biofuel Conversion An Investigation of yields, Kinetics, and Enzymatic Digestibility of Solids". Disertai dari Virginia Commonwealth University.
- Peng, Lincai. et al (2010). "Catalytic Conversion of Cellulose to Levulinic Acid by Metal Chlorides". *Open Acces*.(15), 5258-5272.
- Perez J., J. Munoz-Dorado, T. de la Rubia dan J. Martinez. (2002). *Biodegradation and biological treatments of cellulose, hemicellulose and lignin*.an overview. *Int. Microbiol.* 5:53-63.
- Potthast, Antje. et al. (2002). "Degradation of cellulosic materials by heating in DMAc/LiCl". *Tetrahedron Letters* 43, 77557-7759.
- Rosatella, andrea A. et al. (2011). "5-Hydroxymethylfurfural (HMF) as a Building Block Platform: Biological Properties, Synthesis and Synthetic Applications". *Green Chemistry*, 13, 754.
- Sumada, K., Tamara, P., dan Alqani, F. (2011). "Kajian Proses Isolasi A - Selulosa dari Limbah Batang Tanaman *Manihot Esculenta Crantz* yang Efisien". *Jurnal Teknik Kimia*, 5, (2), 434-438.
- Swatloski, R.P., Spear, S.K., John, D., Holbrey, J.D., dan Rogers, R.D., 2002. *Dissolution of cellulose with ionic liquids*. *J. Am. Chem. Soc.* 124, 4974–4975.
- Tim Puslitbang Indhan Balitbang Dephan (Kol. Umar S. Tarmansyah). "Pemanfaatan Serat Rami untuk Pembuatan Selulosa", (Online), (<http://buletinlitban.dephan.go.id/index.asp?vnomor=18&mnorutisis=3>, diakses 26 April 2013).
- Ulfstad, L. (2013). *Rheological Study of Cellulose Dissolve in Aqueous ZnCl₂*. Thesis Master Teknik Sains pada Karlstads Universitet, Swedia: tidak diterbitkan.
- Wikipedia. (2013). *Hemicellulose*. [Online] tersedia <http://en.wikipedia.org/wiki/Hemicellulose.html>[15 November 2013].
- Wikipedia. (2011). *Hydroxymethylfurfural*. [online] tersedia <http://en.wikipedia.org/wiki/Hydroxymethylfurfural.html> [07 Oktober 2013]
- Zhang. Y.H. et al. (2007). "Biotechnol". *Bioeng.* 97, 214-223.