



## DAFTAR PUSTAKA

- Abdelnasser, S.S.I. and I.E. Ahmed. 2007. Isolation and identification of new cellulose producing thermophilic bacteria from an Egyptian hot spring and some properties of the crude enzyme. *Australian Journal Basic Applied Science* 1: 473-478.
- Adney, B. and J. Baker. 2008. Measurement of Cellulase Activities. National Renewable Energy Laboratory, Battelle. Januari 2008.
- Akaracharanya, A., T. Taprig, J. Sitdhipol, and S. Tanasupawat. 2014. Characterization of cellulase producing *Bacillus* and *Paenibacillus* strains from Thai soils. *Journal of Applied Pharmaceutical Science* 4: 6-11.
- Andersen, N., E.H. Stenby, and M.L. Michelsen. 2007. Enzymatic Hydrolysis of Cellulose: Experimental and Modeling Studies. Biocentrum. Technical University of Denmark. Ph.D Thesis.
- Ay, J., F. Goetz, R. Borriss, and U. Heinemann. 1998. Structure and function of the *Bacillus* hybrid enzyme GluXyn-1: native-like jellyroll fold preserved after insertion of autonomous globular domain. *Proceeding National Academic Science USA* 95: 6613–6618.
- Aubert, J.P., P. Beguin, and J. Millet. 1987. Biochemistry and Genetics of cellulose Degradation, Fungal and Bacterial enzyme systems and their manipulation. FEMS Symposium. 43, Academic Press, New York.
- Balamurugan, A., R. Jayanthi, P. Nepolean, R. Vidhya Pallavi, and R. Premkumar. 2011. Studies on cellulose degrading bacteria in tea garden soils. *African Journal of Plant Science* 5: 22-27.
- Beguin, P. and J.P. Aubert. 1994. The biological degradation of cellulose. *FEMS Microbiol Review* 13: 25-58.
- Bholay A.D, G. Apurv, G. Malarvili, S. Rameez, and K. Bhushan. 2014. Exploration of cellulolytic potential of Termite gut flora for sustainable development. *Journal of Environmental Science, Toxicology, and Food Technology* 8: 71-76.
- Claus, D. and R. C. W. Berkeley. 1986. Genus *Bacillus* Cohn 1872. In *Bergey's Manual of Systematic Bacteriology* 2: 1105-1139.
- Dillon, R.J. and V.M. Dillon. 2004. The gut bacteria of insects non-pathogenic interaction. *Annual Review of Entomology* 49: 71-92.
- de Castro, A.L.M., R.E. Vollu, R.S. Peixoto, A.L. Grigorevski-Lima, R.R.R. Coelho, E.P.S. Bon, A.S. Rosado, and L. Seldin. 2011. Cellulolytic potential of a novel strain of *Paenibacillus* sp. Isolated from the armored catfish parotocinclus *Maculicauda* gut. *Brazilian Journal of Microbiology* 42: 1608-1615.



- Gao, J., H. Weng, D. Zhu, M. Yuan, F. Guan, and Yu Xi. 2008. Production and characterization of cellulolytic enzymes from the thermoacidophilic fungal *Aspergillusterreus* M11 under solid state cultivation of corn stover. *Bioresource Technology* 99: 7623-7629.
- Glusker, J.P., A.K. Katz, and C.W. Bock. 1999. Metal ions in biological systems. *The Rigaku Journal* 16: 8-16.
- Gupta, P., K. Samant, and A. Sahu. 2012. Isolation of Cellulose-Degrading Bacteria and Determination of Their Cellulolytic Potential. *International Journal of Microbiology* 10: 1-5.
- Hespell, R.B. 1996. Fermentation of xylan, cornfiber, or sugars to acetoin and butanediol by *Bacillus polymyxa* strains. *Current Microbiology* 32: 291–296.
- Illanes, A. 2008. *Enzyme Biocatalysis*. Springer, Chile.
- Kusnadi, Y. 2015. *Isolasi dan Identifikasi Bakteri Selulolitik dan Lipolitik dari Rayap*. Fakultas Pertanian. Universitas Gadjah Mada. Skripsi.
- Lee, H.J., D.J. Shin, N.C., Cho, H.O. Kim, S.Y. Shin, S.Y. Im, H.B. Lee, S.B. Chum, and S. Bai. 2000. Cloning, expression and nucleotide sequences of two xylanase genes from *Paenibacillus sp.* *Biotechnology Lett* 22: 387–392.
- Lehninger, A.L. 1982. *Principles of Biochemistry (Dasar-dasar Biokimia, alih bahasa: Maggy Thenawijaya)*. Penerbit Erlangga, Jakarta.
- Li, Y.H., M. Ding, J. Wang, G.J. Xu, and F. Zhao. 2006. A novel thermo acidophilic endoglucanase, Ba-EGA, from a new cellulose degrading bacterium, *Bacillus sp.* AC-1. *Applied Microbiology Biotechnology* 70: 430-436.
- Lin, L., X. Kan, H. Yan, and D. Wang. 2012. Characterization of extracellular cellulose-degrading enzymes from *Bacillus thuringiensis* strains. *Electronic Journal of Biotechnology* 15: 1-7.
- Mandels, M. and E.T. Reese. 1965. Inhibition of cellulases. *Annual Review Phytopathology* 3: 85–102.
- Markus, L. and T.T. Tuula. 1997. The roles and function of cellulose-binding domains. *Journal of Biotechnology* 57: 15-28.
- Milala, M.A., A. Shugaba, A. Gidado, A.C. Ene, and J.A. Wafar. 2005. Studies on the use of agricultural wastes for cellulase enzyme production by *A. niger*. *Journal of Agriculture and Biological Science* 1: 325–328.
- Miller, L. 1959. Use of dinitrosalicylic acid reagent for determination of reducing sugar. *Anal. Chem.* 31: 426–428.



- Morales, P., A. Madarro, A. Flors, J.M. Sendra, and J.A. Perez-Gonzalez. 1995. Purification and characterization of axylanase and an arabino furanosidase from *Bacillus polymyxa*. *Enzyme Microbiology Technology* 17: 424–429.
- Morey, R.V., D.L. Hatfield, R. Sears, and D.G. Tiffany. 2006. Characterization of feed streams and emissions from biomass gasification/ combustion at fuel ethanol plants. *American Social Agriculture*: 64-180 (Abstr.).
- Mosier NS, P. Hall, C.M. Ladisch, and M.R. Ladisch. 1999. Reaction kinetics, molecular action and mechanisms of cellulolytic proteins. *Advanced Biochemistry Engineering Biotechnology* 65: 23-40.
- Murray, RK., D.K. Granner, and V.W. Rodwell. 2009. Harper's Illustrated Biochemistry (Biokimia Harper, alih bahasa: Brahm). Penerbit Buku Kedokteran EGC, Jakarta.
- Nielsen, P. and J. Sorensen. 1997. Multi-targetandmedium-independent fungal antagonism by hydrolytic enzymesin *Paenibacillus polymyxa* and *Bacillus pumilus* strains from barley rhizosphere. *FEMS Microbiology Ecology* 22: 183–192.
- Ogawa, A., A. Suzumatsu, S. Takizawa, H. Kuboto, K. Sawada, Y. Hakamada, S. Kawai, T. Kobayashi, and S. Ito. 2007. Endoglucanases from *Paenibacillus* spp. from a new clan in glycoside hydrolase family 5. *Journal Biotechnology* 129: 406-414.
- Ohkuma, M. 2003. Termite symbiotic systems: efficient biorecycling of lignocelluloses. *Applied Microbiology Biotechnology* 61:1–9.
- Ouyang, J., Z. Pei, L. Lutwick, S. Dalal, L. Yang, N. Cassai, K. Sandhu, B. Hang, R.L. Wieczorek, M. Bluth, and M.R. Pinculs. 2008. Case Report: *Paenibacillus thiaminolyticus*: A New Cause of Human Infection, Inducing Bacteremia in a Patient on Hemodialysis. *Annual Clinic Labouratorium Science*: 1-14.
- Paul, J., S. Saxena, and A. Varma. 1993. Ultrastructural studies of the termite (*Odontotermes obesus*) gut microflora and its cellulolytic properties. *World Journal Microbiology Biotechnology* 9: 108-112.
- Rabinovich, M.L., M.S. Melnick, and A.V. Bolobova. 2002. The structure and mechanism of action of cellulolytic enzymes. *Biochemistry* 67: 1026-1050.
- Rye, C.S and S.G. Withers. Glycosidase mechanisms. 2000. *Current Opinion in Chemical Biology* 4: 573-580.
- Rivas, R., P.F. Mateos, E. Martinez-Molina, and E. Velazquez. 2005a. *Paenibacillus phyllosphaerae* sp. nov., a xylanolyticbacter-iumisolated from the phyllosphere of Phoenixdactylifera. *International Journal System Evolution Microbiology* 55: 743–746.



- Rivas, R., P.F. Mateos, E. Martinez-Molina, and E. Velazquez. 2005b. *Paenibacillus xylanilyticus* sp. nov., an airborne xylanolytic bacterium. *International Journal System Evolution Microbiology* 55: 405–408. b.
- Russell, P.J., S.L. Wolfe, P.E. Hertz, C. Starr, and B. McMillan. 2008. *Biology: The Dynamic Science*, Volume 1. 1<sup>st</sup> ed. Thomson Brooks, Canada.
- Sanchez, M. M., F. I. Pastor, and P. Di'az. 2003. Exo-mode of action of cellobiohydrolase Cel48C from *Paenibacillus* sp. BP-23. A unique type of cellulase among *Bacillales*. *European Journal Biochemistry* 270: 2913–2919.
- Saxena, S., J. Bahadur, and A. Varma. 1993. Cellulose and hemicellulose degrading bacteria from termite gut and mould soils of India. *The Indian Journal of Microbiology* 33: 55–60.
- Schwarz, W.H. 2001. The cellulosome and cellulose degradation by anaerobic bacteria. *Applied Microbiology and Biotechnology* 56: 634–649.
- Sharada, R., G. Venkateswarlu, S. Venkateshwar, and M. A. Rao. 2013. Production of cellulase – a review. *International Journal of Pharmaceutical, Chemical And Biological Sciences* 3: 1070-1090.
- Sharrock, K.R. 1988. Cellulose assay method: a review. *Journal of Biochemical and Biophysical Methods* 17: 81-106.
- Tailliez, P., H. Girard, J. Millet, and P. Beguin. 1989. Enhanced cellulose fermentation by an a sprogenous and ethanol tolerant mutant of *Clostridium thermocellum*. *Applied Environmental Microbiology* 55: 207–211.
- Tejirian, A. and F. Xu. 2010. Inhibition of cellulase-catalyzed lignocellulosic hydrolysis by iron and oxidative metals ion and complexes. *Applied and Environmental Microbiology* 76: 7673-7682.
- Velazquez, E., T. de Miguel, T., M. Poza, R. Rivas, R. Rossello-Mora, and T.G. Villa. 2004. *Paenibacillus favisporus* sp. nov., axylanolytic bacterium isolated from cowfaeces. *International Journal System Evolution Microbiology* 54: 59–64.
- Wang, C.M., C.L. Shyu, S.P. Ho, and S.H. Chiou. 2008. Characterization of a novel thermophilic, cellulose degrading bacterium *Paenibacillus* sp. strain B39. *The Society for Applied Microbiology* 47: 46-53.
- Wright S.F. 2003. The important of soil microorganisms in aggregate stability. *Proc. North central extension. Industry soil fertility Conference* 19: 93-98.
- Zamost, B. L., H.K. Nielsen, and R. L. Starnes. 1991. Thermostable enzymes for industrial applications. *Journal Ind Microbiology* 8: 71–82.
- Zechel, D.L. and S.G. Withers. 1999. Glycosidase mechanisms: anatomy of a finely tuned catalyst. *Accounts of Chemical Research* 33: 11-18.