

DAFTAR PUSTAKA

- Alexander, M. 1977 . *Introduction to Soil Microbiology*. 2nd Edition. John Wiley and Sons. New York.
- Anggraini, W. 2010. Uji Aktivitas Enzim Kitinase dari Isolat *Actinomycetes* Selama Proses *Solid State Fermentation* Kitin dengan Metode Somogyl-Nelson. (Skripsi). Universitas Lampung. Bandar Lampung.
- Anonim. 2007. *Glukosamin Untuk Osteoartitis*. <http://www.halalguide.info>. Diakses pada 10 Januari 2013.
- Augustine, S.K., S.P. Bhavsar, dan B.P. Kapadnis. 2006. A Non-Polyene Antifungal Antibiotic from *Streptomyces albidoflavus* PU23. *Journal of Bioscience*, 30(2): 191-201.
- Austin , P.A., C.J. Brine , J.E. Castle dan J.P. Zikakis. 1981. Chitin : New Face of Research. *Journal of Science*, 212 : 749.
- Badji, B., A. Zitouni , F. Mathieu, A. Lebrihi dan N. Sabaou. 2006. Antimicrobial Compounds Produced by *Actinomadura* sp AC104 Isolated from an Algerian Sahara Soil. *Canadian Journal of Microbiology*, 55(4): 328-373.
- Bastaman, S. 1989. Studies on Degradation and Extraction of Chitin and Chitosan from Prawn Shell (*Nephrops norvegicus*). (Thesis). The Queen's University. Belfast.
- Cabib, E. 1987. The Synthesis and Degradation of Chitin. A. Meister (Ed) Carbohydrates. *Journal of Enzymology*. 2(7):644 – 650.
- Chahal, P.S., D.S. Chahal, and G.B.B. Lee. 1996. Production of Cellulase in Solid State Fermentation with *Trichoderma reesi* MCG80 on Wheat Straw. *Journal of Applied Biochemistry and Biotechnology*, 57(5): 433-441.
- Clark, K. 2007. *Kromatografi Cair Kinerja Tinggi (HPLC)*. <http://www.chem-is-try.org>. Diakses pada 28 Januari 2013.
- Darmono. 1995. *Budidaya Udang Penaeus*. Kanisius. Yogyakarta. Hlm. 5.

- Dinter, S., U. Bunger, and E. Siefert. 2000. Enzymatic Degradation of Chitin by Microorganisms. In: *Advances in Chitin Science*. Universitat Potsdam Druckhaus Schmergow. Germany.
- EFSA [European Food Safety Authority]. 2009. Scientific Opinion on the substantiation of a health claim related to glucosamine hydrochloride and reduced rate of cartilage degeneration and reduced risk of development of osteoarthritis pursuant. Parma, Italy. *European Food Safety Authority*, 7(10): 1358.
- Elsawati, E. 1994. Limbah Udang Dibuang Sayang. Techner12. Bogor. Hlm. 19.
- Foth, D. 1991. *Dasar-dasar Ilmu Tanah*. Gajah Mada University Press. Yogyakarta.
- Foucher, J.P., G.K. Westbrook, A. Boetius, S. Ceramicola, S. Dupre, J. Mascl, J. Mienert, O. Pfannkuche, C. Pierre, and D. Praeg. 2009. Structure and Drivers of Cold Deep Ecosystems. *Oceanography*, 22: 92-109.
- Fukamizo, T. 2000. Chitinolytic Enzymes: Catalysis, Substrate Binding, and Their Application. *Current Protein and Peptide Science*, 1: 105-124.
- Gooday, G.W., W.Y. Zhu, and R.W. O'Donnell. 1992. What are the roles of chitinases in the growing fungus. *Microbiology Letters*, 100(3): 387-391.
- Gray, P., N. Hendy, dan W. Dunn. 1978. Digestion by cellulolytic enzymes of alkali pretreated bagasse. *Journal of Institut Agricultur Science*, 1: 210-212.
- Gijzen, M., K. Kuflu,D. Qutob, and J.T. Chernys. 2001. A Class I Chitinase from Soybean Seed Coat. *Journal of Experimental Botany*, 52: 2283-2289.
- Gritter, R.J., J.M. Bobbitt, and A.E. Schwarting. 1991. *Intoduction to Chromatography*. Halden Day Inc Oakland. USA.
- Harman, G.E., Crown K.H., Mitchel L., Ray M.B., Alexander D.P., Candy P., and Andrew T.. 1993. Chitinolytic Enzyme of *Trichoderma hazianum*: Purification of Chitobiosidase and Endochitinase. *Phytopathology*, 2(83):313-318.
- Holker, U., M. Hofer, and J. Lenz. 2004. Biotechnological Advantages of Laboratory-Scale Solid State Fermentation with Fungi. *Journal of Applied Microbiology and Biotechnology*, 64:175–186.
- Horton, D. and J.D. Wander. 1980. *The Carbohydrates*. Vol IB. Academic Press. New York.

- Howard, M.B., N.A. Ekborg, L.E. Taylor, R.M. Weiner, and S.W. Hutcheson. 2003. Genomic Analysis and Initial Characterization of the Chitinolytic System of Microbulbifer Degradans Strain 2-40. *Journal of Bacteriology*, 185: 3352-3360.
- Hsu, C.P.S. 1994. *Infrared Spectroscopy*. Handbook of Instrumental Techniques for Analytical Chemistry. Hualingan. Shanghai. Hlm. 123-126.
- Jacyno, M. and C.T. Dean. 2004. *New High Sensitivity HPLC Assay For Glucosamine Using ELSD*. <http://www.dongmyung.co.kr>. Diakses pada tanggal 22 Februari 2013.
- Jutono, F. 1995. *Enzim Pangan*. Gramedia Pustaka Utama. Jakarta. Hlm.12-21.
- Knorr, D. 1984. Use of Chitinous Polymers in Food. A Challenge for food research and development. *Food Technology*. 38: 85-97.
- Lee, J.P. and B.Y. Hwang, 2002. Diversity of Antifungal Actinomycetes in Various Vegetative Soils of Korea. *Canadian Journal of Microbiology*, 48(5): 407–17.
- Lehninger, A.L. 1982. *Dasar-Dasar Biokimia*. Erlangga. Jakarta. Hlm. 84-89.
- Maggy, L.T. 1990. *Dasar-Dasar Biokimia*. Erlangga. Jakarta.
- Manitto, P. 1981. *Biosintesis Produk Alami*. Terjemahan Koensoemardiyyah. Ellis Horwood Limited Publishers, Chichester.
- Margavey, N.A., J. M. Keller, V. Bernan, M. Dworkin, and D. H. Sherman. 2004. Isolation and Characterization of Novel Marine-Derived *Actinomycetes* Taxa Rich in Bioactive Metabolites. *Journal of Applied and Environmental Microbiology*, 12: 7520-7529.
- Marganof. 2003. *Potensi Limbah Udang sebagai Penyerap Logam Berat (Timbal, kadmium dan tembaga) di perairan*. <http://www.prodiikelautanunirow.blogspot.com>. Diakses pada 23 februari 2013.
- Mitchel, D., N. Krieger, and M. Berovic. 2006. *Solid-State Fermentation Bioreactors*. Springer-Verlag Berlin. Heidelberg.
- Mugianto, P. 2012. *Uji Efektivitas Fermentasi Kitin Secara Bertahap dengan Isolat Actinomycetes ANL-4 dan Mucor Miehei untuk Pembuatan Glukosamin*. (Skripsi). Universitas Lampung. Bandar Lampung.
- Mulja, M. dan Suharman. 1995. *Analisis Instrumental*. Airlangga University Press. Surabaya. Hlm.121-123.

- Murray, A.T. and P.T. Sandford. 2003. Chitin and Chitosan: Sources, Chemistry, Biochemistry, Physical Properties and Applications. *Journal of Elsevier Applied Science*, 12(6): 561.
- Muzzarelli, R.A.A. 1984. *New Derivates of Chitin and Chitosan: Properties and Application*. European Chitin Society. Grottamare. Hlm. 201-231.
- Nishimura, T., A. Meguro, S. Hasegawa, Y. Nakagawa, M. Shimizu, and M. Hunoh. 2002. An Endophytic Actinomycete, *Streptomyces* sp. AOK-30, Isolated from Mountain Laurel and Its Antifungal Activity. *Journal of Gen Plant Pathology*, 68: 390–397.
- Ohno, T., S. Armand, S. Hatta, N. Nikaidou, B. Henrissat, M. Mitsutomi, and T. Watanabe. 1996. A Modular Family 19 Chininase Found in the Prokaryotic Organism *Streptomyces Griceus*HUT 6037. *Journal of Bacteriology*, 178: 5065-5070.
- Pandey, A., C. Soccoll, and D. Mitchell. 2000. New Developments in Solid-State Fermentation: I – Bioprocesses and Products. *Journal of Process Biochemistry*, 35: 1153–1169.
- Pareira, B.M. 2004. *Limbah Cangkang Udang Menjadi Kitosan*. <http://www.chem-is-try.org>. Diakses pada 26 Januari 2013.
- Patil, R.S., V. Ghormade, and M.V. Deshpande. 2000. Chitinolytic Enzymes: An Exploration. *Journal of Enzyme and Microbial Technology*, 26: 473-483.
- Poedjiadi, A. 1994. *Dasar-Dasar Biokimia*. UI Press. Jakarta. Hlm. 472.
- Pujaningsih, R. 2005. *Teknologi Fermentasi dan Peningkatan Kualitas Pakan*. (Skripsi). Universitas Diponogoro. Semarang.
- Rahman, A. 1989. *Pengantar Teknologi Fermentasi*. Departemen Pendidikan dan Kebudayaan Direktorat Jendral Pendidikan Tinggi Pusat Antar Universitas Pangan dan Gizi. Institut Pertanian Bogor. Bogor.
- Rao, K. 2009. *Fermentation Biotechnology*. <http://www.fbae.org>. Diakses pada 26 Januari 2013.
- Rao, N. 1994. *Mikroorganisme Tanah dan Pertumbuhan Tanaman*. UI press. Jakarta.
- Rattanakit, N., A. Plikomol, S. Yano, M. Wakayama, and T. Tachiki. 2002. Evaluation of a culture based on chitinase formation which is necessary for chitin-assimilation. *Journal of Bioscience and Bioenergy*, 93(6): 6-550.

- Rifaat, M.H. 2003. The Biodiversity of Actinomycetes in the River Nile Exhibiting Antifungal Activity. *Journal of Mediterranean Ecology*, 4(3): 5–7.
- Rohani, N. 2000. Deproteinasi Kulit Udang Windu Menggunakan Isolat Bakteri *Bacillus* sp. (Skripsi). Institut Pertanian Bogor. Bogor
- Sahai, A.S. and S.M. Manocha. 1993. Chitinases of Fungi and Plants : Their Involvement in Morphogenesis and Host-Parasite Interaction. *Journal of FEMS Microbiology*, 3(11): 317–338.
- Shaikh, L., K. Kender, A.D. Mukhi, W. Billy, and D.E. Ranfes. 1993. Production of bioenergy and biochemicals from industrial and agricultural wastewater. *Journal of Trends in Biotechnology*, 5(22): 477–485.
- Shantosh, S., and P.T. Mathew. 2007. Preparation of glucosamine and carboxymethylchitin from shrimp shell. *Journal of Applied Polymer Science*, 107: 280-285.
- Shimahara, K. And Y, Takiguci.1988. *Methods Enzymol*. Nikaido. Yokohama. Hlm. 161.
- Silverstein, R.M., G.C. Bassler, dan T.C. Morril. 1986. *Penyelidikan Spektromerik Senyawa Organik*. Edisi keempat. Alih bahasa A.J. Hartono dan Purba A.V. Erlangga. Jakarta. Hlm. 17-33.
- Stephen, A. M. 1995. Food Polysacharides and Their Application. Marcel Dekker. New York.
- Subbarao, N.S. 1994. Mikroorganisme Tanah dan Pertumbuhan Tanaman. Edisi ke-2. UI-Press. Jakarta. Hlm. 38-40.
- Suhartono, M.T. 1989. Enzim dan Bioteknologi. Antar Universitas Bioteknologi. IPB. Bogor.
- Suryanto, D. dan Yurnaliza. 2005. *Eksplorasi Bakteri Kitinolitik : Keragaman Genetik Gen Penyandi Kitinase pada Berbagai Jenis Bakteri dan Pemanfaatannya*. [<http://repository.usu.ac.id>] diakses pada 25 februari 2013
- Sutedjo, M.dan G. Kartasapoetra. 1991. *Mikrobiologi Tanah*. Ineka Cipta. Jakarta.
- Suwandi, U. 1989. *Mikroorganisme Penghasil Antibiotik*. Pusat Penelitian dan Pengembangan PT. Kalbe Farma. Jakarta.
- Syahmani dan A. Slohahuddin. 2009. *Interaksi Cd (II) dengan Kitin dan Kitosan Isolat Limbah Kulit Udang*. <http://ptp2007.wordpress.com/pemanfaatan-kitosan/>. Diakses pada 25 Januari 2013.

- Takizawa, M., R.R. Colwell, and R.T. Hill, 1993. Isolation and Diversity of Actinomycetes in Chesapeake Bay. *Journal of Applied Environmental Microbiology*, 59: 997–1002.
- Tomokazu, K., S. Saito, S. Sato, K. Kanai, F. Fujii, N. Nikaidou, and W. Watanabe. 2004. Distribution and Phylogenetic Analysis of Family 19 Chitinases in Actinobacteria. *Journal of American Society for Microbiology*, 70(2) : 1135-1144.
- Ton, N.M.N., M.D. Nguyen, T.T.H. Pham and V.V.M. Le. 2010. Influence of initial pH and sulfur dioxide content in must on wine fermentation by immobilized yeast in bacterial cellulose. *International Food Research Journal*, 6(3): 743-749.
- Volk, W.A dan M.F. Wheeler. 1993. *Mikrobiologi Dasar. Penerjemah Markham Edisi Kelima*. Erlangga. Jakarta.
- Williams, G.W. 2004. Osteoarthritis and Treatment: What You Need to Know. In The American Council of Science and Health. http://www.acsh.org/publications/pubid.190/pub_detail.asp. Diakses pada 10 Januari 2013.
- Weites, A.M., D.R. Gondim, and L.R.B. Gonçalves. 2001. Ethanol production by fermentation using immobilized cells of *Saccharomyces cerevisiae* in cashew apple bagasse. *Journal of Biochemistry and Biotechnology*, 1(8): 209–217.
- Xu, L., Q. Li, and C. Jiang. 1996. Diversity of Soil *Actinomycetes* in Yunnan, China. *Journal of Applied Environmental Microbiology*, 62 (1): 244-248.
- Yurnaliza. 2002. *Senyawa Kitin dan Kajian Aktivitas Enzim Mikrobial Pendekrasinya*. (Skripsi). Universitas Sumatera Utara. Medan