

## DAFTAR PUSTAKA

- Aslani, E., Abri, A., & Pazhang, M., 2018, *Immobilization of trypsin onto Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> -NH<sub>2</sub> and study of its activity and stability*, Colloids and Surfaces B: Biointerfaces, 170 (May), 553–562. <https://doi.org/10.1016/j.colsurfb.2018.06.022>
- Beg, Q., Kapoor, M., Mahajan, L., & Hoondal, G. S, 2001, *Microbial xylanases and their industrial applications: a review*, Applied Microbiology and Biotechnology, **56**(3–4), 326–338.
- Buzea, C., Pacheco, I. I., & Robbie, K., 2007, *Nanomaterials and nanoparticles: sources and toxicity*, Biointerphases, **2**(4), MR17-MR71.
- Collins, T., Gerday, C., & Feller, G, 2005, *Xylanases, xylanase families and extremophilic xylanase*, FEMS Microbiology Reviews, **29**(1), 3–23.
- Den Haan, R., & Van Zyl, W. H., 2003, *Enhanced xylan degradation and utilisation by Pichia stipitis overproducing fungal xylanolytic enzymes*, Enzyme and Microbial Technology, **33**(5), 620–628.
- El-Batal, A. I., Atia, K. S., & Eid, M, 2005, *Stabilization of α-amylase by using anionic surfactant during the immobilization process*, Radiation Physics and Chemistry, **74**(2), 96–101.
- Firdausa, Fita Kurnia, 2016, *Ekstaksi Xilan dari Limbah Ampas Singkong dan Pemanfaatanya sebagai Substrat Endo-β-1,4-D-Xilanase*, Skripsi Universitas Jember
- Gaman, P. M., Sherrington, K. B., & Gardjito, M., 1994, *Ilmu Pangan: Pengantar Ilmu Pangan, Nutrisi dan Mikrobiologi*, Gadjah Mada University Press.
- Goddette, D. W., Christianson, T., Ladin, B. F., Lau, M., Mielenz, J. R., Paech, C., Wilson, C. R., 1993, *Strategy and implementation of a system for protein engineering*, Journal of Biotechnology, **28**(1), 41–54.
- Gomes-Ruffi, C. R., da Cunha, R. H., Almeida, E. L., Chang, Y. K., & Steel, C. J. , 2012, *Effect of the emulsifier sodium stearoyl lactylate and of the enzyme maltogenic amylase on the quality of pan bread during storage*, LWT-Food Science and Technology, **49**(1), 96–101.
- Guan, Z., Li, L.-Y., & He, Y.-H., 2015, *Hydrolase-catalyzed asymmetric carbon–carbon bond formation in organic synthesis*, Rsc Advances, **5**(22), 16801–16814.

- Gusmawati, Niken Financia, 2008, *Amobilisasi Xilanase Ekstraseluler dari Streptomyces sp. 45I-3*, Tesis Institut Pertanian Bogor
- Hartoto, L., 2008, *Amobilisasi Enzim. Program Studi Teknologi Industri Pertanian. Institut Pertanian Bogor.*
- Juturu, V., & Wu, J. C., 2012, *Microbial xylanases: engineering, production and industrial applications*, Biotechnology Advances, **30**(6), 1219–1227.
- Kawashima, Y., Yamamoto, H., Takeuchi, H., & Kuno, Y., 2000, *Mucoadhesive DL-lactide/glycolide copolymer nanospheres coated with chitosan to improve oral delivery of elcatonin.*, Pharmaceutical Development and Technology, **5**(1), 77–85.
- Liese, A., & Hilterhaus, L., 2013, *Evaluation of immobilized enzymes for industrial applications*, Chemical Society Reviews, **42**(15), 6236–6249.
- Mozhaev, V. V., & Martinek, K., 1990, *Structure-stability relationships in proteins: a guide to approaches to stabilizing enzymes*, Advanced Drug Delivery Reviews, **4**(3), 387–419.
- Nisha, S., Karthick, S. A., & Gobi, N., 2012, *A review on methods, application and properties of immobilized enzyme*, Chemical Science Review and Letters, **1**(3), 148–155.
- Nunes, G. S., & Marty, J.-L., 2006), *Immobilization of enzymes on electrodes, Immobilization of Enzymes and Cells*, (pp. 239–250). Springer.
- Permatasari, Mia, 2018, *Peningkatan Stabilitas Enzim Selulase dari Bakteri Bacillus substillis ITBCCB148 dengan Amobilisasi Menggunakan Zeolit*, Skripsi Universitas Lampung
- Poedjiadi, Anna, 1994, Dasar-dasar Biokimia, Universitas Indonesia Press, Jakarta  
Puspaningsih, N. N. T., 2004, *Charachterization of Xylanolytic Enzyme and Cloning Xylosidase Gene from Geobacillus thermoleovorans IT-08*, PhD Dissertation, Bogor Agricultural Univesity, Indonesia.
- Puspaningsih, N. N. T., Suwito, H., Sumarsih, S., Rohman, A., & Asmarani, O. , 2007, *Hidrolisis Beberapa Jenis Xilan Dengan Enzim Xilanolitik Termofilik Rekombinan*, Berk. Penel. Hayati, **12**(191–194.)
- Putri, S. T., 2011, *Pengaruh Temperatur Sintering Terhadap Ukuran Nanopartikel Fe<sub>3</sub>O<sub>4</sub> Menggunakan Template Peg-4000*, Skripsi Fisika, Universitas Andalas, Padang.
- Richana., 2002, *Produksi dan Prospek Enzim Xilanase dalam Pengembangan*

- Bioindustri di Indonesia*, Buletin AgroBio, **5**(1), 29–36.  
<https://doi.org/FEC0FD8D-A181-4AFD-BEA7-AEADF75DEE82>
- Richana, N., Irawadi, T. T., Nur, M. A., Sailah, I., Syamsu, K., & Arkenan, Y., 2007, *Ekstraksi xilan dari tongkol jagung*, J. Pascapanen, **4**(1), 38–43.
- Rohman, A., Van Oosterwijk, N., Kralj, S., Dijkhuizen, L., Dijkstra, B. W., & Puspaningsih, N. N. T, 2007, *Purification, crystallization and preliminary X-ray analysis of a thermostable glycoside hydrolase family 43  $\beta$ -xylosidase from Geobacillus thermoleovorans IT-08*, Acta Crystallographica Section F: Structural Biology and Crystallization Communications, **63**(11), 932–935.
- Saragi, T., Santika, A. S., Permana, B., Syakir, N., & Kartawidjaja, M., 2017, *Synthesis and Properties of Iron Oxide Particles Prepared by Hydrothermal Method*. In *IOP Conference Series, Materials Science and Engineering (Vol. 196, p. 12025)*, IOP Publishing.
- Sheldon, R. A., & van Pelt, S., 2013, *Enzyme immobilisation in biocatalysis: why, what and how*, Chemical Society Reviews, **42**(15), 6223–6235.
- Subramaniyan, S., & Prema, P., 2002, *Biotechnology of microbial xylanases: enzymology, molecular biology, and application*, Critical Reviews in Biotechnology, **22**(1), 33–64.
- Sugiyarto, K. H., 2003, *Kimia Anorganik II*, Yogyakarta: FMIPA Universitas Negeri Yogyakarta.
- Wagschal, K., Heng, C., Lee, C. C., Robertson, G. H., Orts, W. J., & Wong, D. W. S., 2009, *Purification and characterization of a glycoside hydrolase family 43  $\beta$ -xylosidase from Geobacillus thermoleovorans IT-08*, Applied Biochemistry and Biotechnology, **155**(1–3), 1–10.
- Williamson, K.L and L.F. Fieser, 1992, *Organic Experiment 7th Edition*, D C Health ang Company, United States of America
- Wissuwa, J., Stokke, R., Fedøy, A.-E., Lian, K., Smalås, A. O., & Steen, I. H., 2016, *Isolation and complete genome sequence of the thermophilic Geobacillus sp. 12AMOR1 from an Arctic deep-sea hydrothermal vent site*, Standards in Genomic Sciences, **11**(1), 16.
- Yandri., 2013, *Effect of Immobilization Towards Thermal Stability of  $\alpha$ -Amylase Isolated from Locale Bacteria Isolate Bacillus subtilis ITBCCB148 with Calcium Alginate*, **25**(12), 6897–6899.
- Zhou, Y., Pan, S., Wei, X., Wang, L., & Liu, Y., 2013, *Immobilization of  $\beta$ -glucosidase onto Magnetic Nanoparticles and Evaluation of the Enzymatic*

*Properties*, **8**(2), 2605–2619.

Zubriene, A., Budriene, S., Gorochovceva, N., Romaskevic, T., Matulionis, E., & Dienys, G, 2003, *Immobilization of hydrolases onto chitosan microparticles*, Chemija, **14**(226).

<https://www.bpppt.go.id/teknologi-agroindustri-dan-bioteknologi/2490-ciptakan-pabrik-enzim-pertama-di-indonesia-bpppt-transfer-teknologi-produksi-enzim-ke-pt-petrosida-gresik>, diakses pada 28 Oktober 2018 pukul 4.50