

DAFTAR PUSTAKA

- Abo-Hashesh, M and Hallenbeck, P.C., Fermentative Hydrogen Production, dalam Hallenbeck, P.C (Editor), 2012, **Microbial Technologies in Advanced Biofuels Production**, Springer Science+Business. London. Page: 77–92.
- Abu-Reesh, I.M., 2014. Kinetics of anaerobic digestion of labaneh whey in a batch reactor, **African Journal of Biotechnology**, Vol. 13(16): 1745 – 1755.
- Aguilar, R., Ramirez, J.A., Garrote, G., and Vazquez, M. 2002. Kinetic study of the acid hydrolysis of sugar cane bagasse. **Journal of Food Engineering**, Vol. 55: 309–318
- Angenent, L.T., Karim, K., Al-Dahhan, M.H., Wrenn, B.A., and Domıguez-Espinosa, R., 2004. Review: Production of bioenergy and biochemicals from industrial and agricultural wastewater, **Trends in Biotechnology**, Vol.22(9): 477 – 485.
- Arastehnodeh, A., Ardjmand, M., Fanaei, M.A., and Safekordi, A.A., 2012. Kinetic modeling of concentrated acid hydrolysis of walnut green skin. **African Journal of Biotechnology**. Vol. 11(4): 878-887.
- Bai, M.D., 2003. Study on Characteristics of the hydrogen fermentation utilizing multiple substrates containing nitrogen compounds. **PhD Dissertation**, Departement of Environmental Engineering, National Cheng Kung University.
- Camacho, F. Gonzalez-Tello, P., Jurado, E., and Robles, A., 1996. Microcrystalline-Cellulose Hydrolysis with Concentrated Sulphuric Acid. **J. Chem. Tech. Biotechnol.** Vol. 67: 350-356
- Candido, R.G., Godoy, G.G., and Goncalves, A.R., 2012. Study of sugarcane bagasse pretreatment with sulfuric acid as a step of cellulose obtaining, **World academy of Science, Engineering and Technology**, Vol. 61: 101–105.
- Cao, G., Ren, N., Wang, A., Lee, D.J., Guo, W., Liu, B., Feng, Y., Zhao, Q., 2009. Acid hydrolysis of corn stover for biohydrogen production using *Thermoanaerobacterium thermosaccharolyticum* W16. **Int. J. of Hydrogen Energy**, Vol. 34: 7182 – 7188.
- Chang, A.C.C., Tu, Y.H., Huang, M.H., and Lay, C.H., 2011. Hydrogen production by the anaerobic fermentation from acid hydrolyzed rice straw hydrolysate, **Int. J. of hydrogen energy**, Vol. 36: 14280–14288.

- Chen, C.C., Lin, C.Y., Lin, M.C., 2002. Acid-base enrichment enhances anaerobic hydrogen production process. **Appl Microbiol Biotechnol** 58(2): 224-228.
- Chen, Y.R., and Hashimoto, A.G., 1979. Biodegradation of solid waste by anaerobic digestion. **Appl. Biotechnol.**, Vol. 4: 1 – 27.
- Cheong, D.Y., and Hansen, C.L., 2006. Bacterial stress enrichment enhances anaerobic hydrogen production in cattle manure sludge, **Appl Microbiol Biotechnol**, Vol. 72(4): 635–643
- Chinnacotpong, K., Prapagdee, B., Ussawarujikulchai, A., Wongthanate, J., 2010. Effect of pH on bio-hydrogen production from food waste under mesophilic and thermophilic condition, **Proceeding 36th Congress on Science and Technology of Thailand**. Available on line. (diakses 10 Desember 2011).
- Costa, C.C., Vaz, M., R., F., Da Costa, J., G., Santos, E., S., and Macedo, G., R., 2011. Selection, isolation and growth kinetic study of a bacterial consortium obtained from the potengi mangrove in the presence of crude oil, **Brazilian J. of Petroleum and Gas**, Vol. 5 (4): 217 – 225.
- Cubillos, G., Arrué, R., Jeison, D., Chamy, R., Tapia, E., Rodríguez, J., and Ruiz-Filippi, G., 2010. Simultaneous effects of pH and substrate concentration on hydrogen production by acidogenic fermentation, **Electronic Journal of Biotechnology**, Vol.13 (1): 1–7.
- Cui, M., Yuan, Z., Zhi, X., Wei, L., Shen, J., 2010. Biohydrogen production from poplar leaves pretreated by different methods using anaerobic mixed bacteria. **Int. J. of Hydrogen Energy**, Vol. 35: 4041 – 4047.
- Das, D., and Mangwani, N., 2010. Recent developments in microbial fuel cells: A Review. **J. Of scientific and Industrial Research**, Vol. 69: 727 – 731.
- Dong, L., Zhenhong, Y., Yongming, S., Longlong, M., Lianhua, L., 2009. Sequential anaerobic fermentatif production of hydrogen and methane from organic fraction of municipal solid waste., **Chin J. Appl. Environ. Biol.**, Vol. 15(2): 250 – 257.
- Fan, Y.T., Zhang, Y.H., Zhang, S.F., Hou, H.W., Ren, B.Z., 2006. Efficient conversion of wheat straw wastes into biohydrogen gas by cow dung compost, **Bioresource Technol.**, Vol. 97(3): 500 – 5005.
- Fang, H.H.P. and Liu, H., 2002. Effect of pH on hydrogen production from glucose by a mixed culture. **Bioresource Technology**, Vol. 82: 87–93.

- Fountoulakis, M.S., and Manios, T., 2009. Enhanced methane and hydrogen production from municipal solid waste and agro-industrial by-products co-digested with crude glycerol, **Bioresource Technology**, Vol. 100: 3043–3047.
- Gadhamshtetty, V., Johnson, D.C., Nirmalakhandan, N., Smith, G.B., Deng, S., 2009. Feasibility of biohydrogen production at low temperatures in unbuffered reactors. **Int. J. Hydrogen Energy**, Vol.34:1233–1243.
- Gallert, C. and Winter, J., 2005, Bacterial metabolism in wastewater treatment system, *dalam* : **Environmental Biotechnology, Concepts and Applications**, Hans-Joachim Jördening and Josef Winter (Editor), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim.
- Gavala, H.N., Skiadas, I.V., Ahring, B.K., Lyberatos, G., 2006. Thermophilic anaerobic fermentation of olive pulp for hydrogen and methane production: modelling of the anaerobic digestion process. **Water Sci. Technol.** Vol.53: 271–279.
- Hallenbeck, P.C., and Benemann, J.R., 2002. Biological hydrogen production; fundamentals and limiting processes. *Int J. of Hydrogen Energy*, Vol. 27: 1185–1193.
- Hallenbeck, P.C., Ghosh, D., Skonieczny, M.T., Yargeau, V., 2009. Microbiological and engineering aspects of biohydrogen production, *Indian J Microbiol*, Vol. 49: 48–59.
- Hawkes, F.R., Dinsdale, R., Hawkes, D.L., Hussy, I., 2002. Sustainable fermentative hydrogen production: Challenges for process optimisation, **Int. J. of Hydrogen Energy**, Vol. 27(11–12): 1339–1347.
- Hong-Bo, D., and Jing-Yuan, W., 2008. Effect of protein on biohydrogen production from starch of food waste. **Civil Engineering Research**, Vol. 21: 48–50.
- Islam, S.M.R. and Sakinah, A.M.M., 2011, Kinetic Modeling of the Acid Hydrolysis of Wood Sawdust, **Int. J. of Chemical and Environmental Engineering**, Vol.2, No.5. pp. 333– 337.
- JianLong, W and Wei, W., 2008. The effect of substrate concentration on biohydrogen production by using kinetic models, **Sci. China Series B: Chemistry**, Vol. 51(11): 1110 – 1117.

- Jayalakshmi, S., Sukumaran, V., and Joseph, K., 2007. Hydrogen production from kitchen waste using heat treated anaerobic biogas plant slurry. **Proceeding of the Int. Conference on Sustainable solid waste management**, 5 – 7 September 2007, Chennai, India, page: 356–362.
- Jingura, R.M., and Matengaifa, R., 2009. Optimization of biogas production by anaerobic digestion for sustainable energy development in Zimbabwe. **Renewable and Sustainable Energy Reviews**, Vol. 13:1116–1120.
- Kapdan, I., Kargi F., 2006. Biohydrogen production from waste materials. **Enzyme and Microbial Technology**, Vol.38(5): 569-582.
- Kawagoshi, Y., Hino, N., Fujimoto, A., Nakao, M., Fujita, Y., Sugimura, S., Furukawa, K., 2005. Effect of inoculum conditioning on hydrogen fermentation and pH effect on bacterial community relevant to hydrogen production, **J. of Biosci. Bioeng.**, Vol. 100(5): 524–530.
- S.H., Shin, H.S., 2008. Effect of base-pretreatment on continuous enriched culture for biohydrogen production from foodwaste, **Int. J. of Hydrogen Energy**, Vol. 33(19): 5265 – 5274.
- Kim, Y., Jo, J.H., Lee, D.S., and Park, J.M., 2006., Fermentative hydrogen production from food waste, **Studies in surface Science and Catalyst**, Vol. 159: 149 – 152.
- Kim, S.H., Shin, H.S., 2008. Effect of base-pretreatment on continuous enriched culture for biohydrogen production from foodwaste, **Int. J. of Hydrogen Energy**, Vol. 33(19): 5265 – 5274.
- Kim, J.O., Kim, Y.H., Yeom, S.H., Song, B.K., Kim, I.H., 2006. Enhancing continuous hydrogen gas production by the addition of nitrate into an anaerobic reactor. **Process Biochem**, Vol. 2006(41): 1208–1212.
- Kim, M.S., and Lee, D.Y., 2010. Fermentative hydrogen production from tofu-processing waste and anaerobic digester sludge using microbial consortium, **Bioresource Technology**, Vol. 101: S48 – S52.
- Kim, M.S., Lee, D.Y., and Kim, D.H., 2010. Continuous hydrogen production from tofu processing waste using anaerobic mixed microflora under thermophilic condition, **Int. Journal of Hydrogen Energy XXX (2010)**, (available at www.sciencedirect.com).

- Kraemer, J.T. and Bagley, D.M., 2007. Review: Improving the yield from fermentative hydrogen production, **Biotechnol Lett.**, Vol. 29:685–695
- Kumar, R., Singh, S., dan Singh, O.V., 2008. Bioconversion of lignocellulosic biomass: biochemical and molecular perspectives, **J. of Ind. Microbiol. Biotechnol.**, Vol.35:377–391.
- Lay, J.J., 2000. Modeling and optimization of anaerobic digested sludge converting starch to hydrogen, **Biotechnol. Bioeng.**, Vol. 68(3): 269–278.
- Li, C., and Fang, H.H.P., 2007. Fermentative Hydrogen Production from wastewater and solid waste by mixed culture, **Critical Reviews in Environmental Science and Technology**, Vol. 37: 1–39.
- Lin, C.Y., and Lay., C.H., 2005. A nutrient formulation for fermentative hydrogen production using anaerobic sewage sludge microflora. *Int. J. Hydrogen Energy*, Vol 30(3): 285–292.
- Liu, X., Liu, H., Chen, Y., Du, G., and Chen, J., 2008, Effects of organic matter and initial carbon–nitrogen ratio on the bioconversion of volatile fatty acids from sewage sludge, **J. of Chem. Technol. and Biotechnol.**, Vol. 83:1049–1055.
- Liu, C.Z., Cheng, X.Y., 2010. Improved hydrogen production via thermophilic fermentation of corn stover by microwave-assisted acid pretreatment. **Int. J. of hydrogen energy**, Vol. 35(17): 8945–8952.
- Logan, B.E., Oh, S.E., Kim, I.S., and Van Ginkel, S., 2002. Biological hydrogen production measured in batch anaerobic respirometers. **Environ. Sci. Technol.** Vol. 36: 2530–2535.
- Luste, S. 2011. Anaerobic Digestion of Organic By-products from Meat-processing Industry: The Effect of Pre-Treatments and Co-digestion, **PhD. Thesis**, Department of Environmental Science, University of Eastern Finland, Kuopio, Finland. Available on line at: <http://www.uef.fi/kirjasto> (diakses Nopember 2013).
- Mata-Alvarez, J., Mace S., Llabrés P., 2000. Anaerobic digestion of organic solid wastes, An overview of research achievements and perspectives. **Bioresourc Technology**, Vol. 74: 3-16.
- Menristek, 2010. Biogas dari Limbah Tahu. News: 14 Mei 2010. Technology Indonesia. Mapiptek E-Magazine (online) <http://www.mappitek/mappitek.ristek.go.id>. Data diakses 28 Oktober 2011

- Miller, G.L., 1972. Use of dinitrosalicylic acid reagent for determination of reducing sugar. *Dalam* Gupta, P., Samant, K., and Sahu, A., 2012. Isolation of Cellulose-Degrading Bacteria and Determination of Their Cellulolytic Potential. **International Journal of Microbiology**, Hindawi Publishing Corporation, Vol. 2012: 1–5.
- Mizuno, O., Ohara, T., and Noike, T., 2000. Characteristic of hydrogen production from bean curd manufacturing waste by anaerobic microflora. **Water Science & Technology**, Vol. 42(3): 345–350.
- Mizuno, O., Dinsdale, R., Hawkes, F.R., Hawkes, D.L., Noike, T., 2000. Enhancement of hydrogen production from glucose by nitrogen gas sparging, **Bioresour. Technol.**, Vol.73(1): 59–65.
- Mohan, S.V., Babu, V.L., and Sarma, P.N., 2008. Effect of various pretreatment methods on anaerobic mixed microflora to enhance biohydrogen production utilizing dairy wastewater as substrate, **Bioresource Technology**, Vol.99: 59–67.
- Moreno, R., and Gómez, X., 2012. Dark Fermentative H₂ Production from Wastes: Effect of Operating Conditions. *J of Environmental Science and Engineering Vol 1*) 936-950.
- Mosier, N., Wyman, C., Dale, B., Elander, R., Lee, Y.Y., Holtzapfle, M., and Ladisch, M., (2005), Features of promising technologies for pretreatment of lignocellulosic biomass, **Bioresource Technology**, 96, pp. 673–686.
- Mu, Y., Yu, H.Q., Wang, G., 2007. A kinetic approach to anaerobic hydrogen-producing process. **Enzyme Microb. Technol.** Vol. 38: 905–913.
- Najafpour, G., Ideris, A., Salmanpour, S., and Norouzi, M. 2007. Acid hydrolysis of pretreated palm oil lignocellulosic wastes, **IJE Transaction B: Application**, Vol. 20 (2): 147–156.
- Nandi, R., and Sengupta, S., 1998. Microbial Production of Hydrogen: An Overview. **Critical Reviews in Microbiology**, Vol. 24(1): 61–84.
- Nath, K., and Das, D., 2004. Biohydrogen production as a potential energy resource – Present state of art. **J. of scientific and Industrial Research**, Vol. 63: 729–738.

- Ni, M., Leung, D.Y.C., Leung, M.K.H., Sumathy, K., 2006. An overview of hydrogen production from biomass, **Fuel Processing Technology**, Vol. 87: 461 – 472.
- Nissila, M. 2013. Biohydrogen, Bioelectricity and Bioalcohols from Cellulosic Materials, **Thesis PhD**. Tampere University of Technology, Tampere. Available on line. (diakses Oktober 2013).
- Noike, T., and Mizuno, O., 2000. Hydrogen fermentation of organic municipal wastes. **Water Science and Technology**. Vol 42 (12): 155–162.
- Oh, S.E., van Ginkel, S., Logan, B.E., 2003. The relative effectiveness of pH control and heat treatment for enhancing biohydrogen gas production. **Environ Sci Technol.**, Vol. 37: 5186–5190.
- Okamoto, M., Miyahara, T., Mizuno, O., Noike, T., 2000. Biological hydrogen potential of materials characteristic of the organic fraction of municipal solid wastes. **Water Sci. Technol.** 41, 25–32.
- O’Toole, D., 1999. Characteristics and use of okara, the soybean residue from soy milk production-A review, **J. of Agric. Food Chem.**, Vol. 47 : 363 – 371.
- Parawira, W., Murto, M., Zvauya, R., Mattiasson, B., 2004. Anaerobic batch digestion of solid potato waste alone and in combination with sugar beet leaves. **Renewable Energy**, Vol. 29: 1811–1823.
- Park, W., Hyun, S.H., Oh, S.E., Logan, B.E., Kim, I.S., 2005. Removal of headspace CO₂ increases biological hydrogen production, **Environ. Sci. Technol.**, Vol.39(12): 4416–4420.
- Perera, K.R.J., and Nirmalakhandan, N., 2011. Evaluation of dairy cattle manure as a supplement to improve net energy gain in fermentative hydrogen production from sucrose, **Bioresource Technology**, Vol. 102: 8688–8695.
- Radillo, J.J.V., Ruiz-Lovez, M.A., Macias, R.R., Ramirez, L.B., Garcia-Lopez, P.M., and Toral, F.A.L.D., 2011. Fermentable sugar from *Lupinus rotundiflorus* biomass by concentrated hydrochloric acid hydrolysis, **BioResources**, Vol. 6(1): 344–355.
- Redondo-Cuenca, A., Villanueva-Suarez, M.J., and Mateos-Aparicio, I., 2008. Soybean seeds and its by-product okara as sources of dietary fibre. Measurement by AOAC and Englyst methods, **Food Chemistry**, Vol. 108 : 1099–1105.

- Reith, J.H., Wijffels, R.H., and Barten, H. (Editor), 2003. **Bio-methane & Bio-hydrogen: status and perspectives of biological methane and hydrogen production**, Dutch Biological Hydrogen Foundation, c/o Energy research Centre of The Netherlands ECN, Unit Biomass, attn. available on line at: <http://www.biohydrogen.nl>. (diakses 10 Desember 2011).
- Ren, N., Guo, W.Q., Wang, X.J., Xiang, W.S., Liu, B.F., Wang, X.Z., Ding, J., Chen, Z.B., 2008. Effect of different methods on fermentation types and dominant bacteria for hydrogen production. **Int. J. of Hydrogen Energy**, Vol. 33: 4318 – 4324.
- Rojas, M.P.A., Zaiat, M. and da Silva, W.L., 2010. Influence of the Carbon/Nitrogen Ratio on the Hydrogen Production in a Fixed-bed Anaerobic Reactor, **Proceedings of the WHEC**, May 16–21, 2010, Essen.
- Saeman, J. F.. 1945. Kinetics of wood saccharification. Hydrolysis of cellulose and decomposition of sugars in dilute acid at high temperature, dalam Aguilar, R., Ramirez, J.A., Garrote, G., and Vazquez, M. 2002. Kinetic study of the acid hydrolysis of sugar cane bagasse. **Journal of Food Engineering**, Vol. 55: 309–318
- Salerno, M.B., Park, E., Zuo, Y., and Logan, B.E., 2006. Inhibition of biohydrogen production by ammonia, **Water Research**, Vol. 40: 1167 – 1172.
- Saratale, G.D., Chen, S.D., Lo, Y.C., Saratale, R.G., and Chang, J.S., 2008. Outlook of biohydrogen from lignocellulosic feedstock using dark fermentation – a review. **J. of Scientific & Industrial Research**, Vol. 67: 962 – 979.
- Sediawan, W.B. and Prasetya, 1997, *Pemodelan matematis dan Penyelesaian numeris dalam Teknik Kimia dengan Pemrograman Bahasa Basic dan Fortran*, Edisi I, Andi, Yogyakarta : 62 – 65.
- Shalabi, A.O.H., 2011. Production of Bio-Ethanol from Olive Pulp, **Thesis Master of Science**, Faculty of Graduate Studies, An –Najah National University, Palestine (*available online*)
- Shen, J. and Wyman, C.E., 2011. Hydrochloric Acid-Catalyzed Levulinic Acid Formation from Cellulose: Data and Kinetic Model to Maximize Yields, **J. of AIChE**, Vol. 00(0): 1 – 11.
- Shuler, M.L. and Kargi, F., 1992. **Bioprocess Engineering: Basic Concept**, Prentice- Hall International, Inc., New Jersey, page: 148 – 194.

- Sreela-or, C., Plangklang, P., Imai, T., Reungsang, A., 2011. Co-digestion of food waste and sludge for hydrogen production by anaerobic mixed cultures: Statistical key factors optimization, **Int J. Hydrogen Energy**, Vol. xxx: I–II. (doi:10.1016/j.ijhydene. 2011.05.145)
- Susilaningsih, D., Harwati, T.U., Anam, K., dan Yopi, 2008. Preparasi substrat limbah biomassa kayu untuk produksi biohidrogen. **Makara, Teknologi**. Vol. 12(1): 38–42.
- Taguchi, F., Yamada, K., Hasegawa, K., Takisaito, T., Hara, K. 1996. Continuous Hydrogen-Production by Clostridium Sp Strain No-2 from Cellulose Hydrolysate in an Aqueous 2-Phase System. **J. of Fermentation and Bioengineering**, Vol. 82(1): 80-83
- Taherzadeh, M.J., and Karimi, K., 2008. Pretreatment of lignocellulosic wastes to improve ethanol and biogas production : A Review. **Int. J. of Molecular Sciences**, Vol. 9: 1621 – 1651.
- Tong, Xi, and McCarty, P.L., 1991. Microbial hydrolysis of lignocellulosic materials, dalam Isaacson, R. (editor), 1001. **Methane from community wastes**, Elsevier applied science, London and New York, page: 61 – 100.
- Valdez-Vazquez, I., Rios-Leal, E., Esparza-Garcia, F., Garcia-Mena, J., Cecchi, F., Pavan, P., and Poggi-Varaldo, H.M., 2004. A Review on hydrogen production with anaerobic mixed cultures. **Chemical Engineering Transactions**, Vol. 4: 123–130.
- Valdez-Vazquez, I. and Poggi-Varaldo, H.,M., 2009. Hydrogen production by fermentative consortia, **Renewable and Sustainable Energy Reviews**, Vol. 13: 1000–1013.
- Van Ginkel, S.W., and Logan, B., 2005. Increased biological hydrogen production with reduced organic loading, *Water Res.*, Vol.39(16): 3819–3826.
- Veeravalli, S.S., Chaganti, S.R., Lalman, J.A., and Heath, D.D., 2013, Effect furan and linoleic acid on hydrogen production, **Int. J. of Hydrogen Energy**, 38, pp. 12283–12293.
- Waterborg, J.H., 2002, The Lowry Method for Protein Quantitation, *dalam* Walker, J.M. (Editor), **The Protein Protocols Handbook**, 2nd ed. Humana Press, New Jersey, pp.: 7–9.

- White, J.W., 1979. Sugar and Sugar Product: Spectrophotometric method for hydroxymethylfurfural in Honey, **J. Assoc. Off Analytical Chemistry**, Vol. 62 (3): 509 – 514.
- Widarti, B.N., 2012. Produksi biogas dari limbah pembuatan tahu dan kotoran sapi. **Thesis Magister**, Program Pasca Sarjana, Universitas Gadjah Mada, Yogyakarta.
- Xiang, Q., Lee, Y.Y., Pettersson, P.O., and Torget, R.W., 2003. Heterogeneous Aspects of Acid Hydrolysis of α -Cellulose, **Applied Biochemistry and Biotechnology**, Volumes 107: 505 - 514
- Zhang, T., Liu, H., Fang, H.H.P., 2003. Biohydrogen production from starch in wastewater under thermophilic condition. **J. Environ. Manage.** 69, 149–156.
- Zhang, K., Ren, N.Q., Guo, C.H., Wang, A.J., Cao, G.L., 2011. Effects of various pretreatment methods on mixed microflora to enhance biohydrogen production from corn stover hydrolysate. **Journal of Environmental Sciences**, Vol. 23(12): 01—08.
- Zhu, H., Be'land, M., 2006. Evaluation of alternative methods of preparing hydrogen producing seeds from digested wastewater sludge, **Int. J. Hydrogen Energy**, Vol 31(14): 1980–1988.