

## REFERENCES

- Adams MW, Mortenson LE. The physical and catalytic properties of hydro-genase II of *Clostridium pasteurianum* a comparison with hydrogenase I. *J Biol Chem* 1984;259:7045–7055.
- Andersch W, Bahl H, Gottschalk G. Levels of enzymes involved in acetate, butyrate, acetone and butanol formation by *Clostridium acetobutylicum*. *J Appl Microbiol Biotechnol* 1983;18:327–332.
- Annous BA, Shieh JS, Shen GJ, Jain JMK, Zeikus G. Regulation of hydrogen metabolism in *Butyribacterium methylotrophicum* by substrate and pH. *Appl Microbiol Biotechnol* 1996;45:804-810.
- Argun H, Kargi F. Effect of sludge pre-treatment method on bio-hydrogen production by dark fermentation of waste ground wheat. *Int J Hydrogen Energy* 2009;34:8543-8548.
- APHA/AWWA/WPCF. Standard method for the examination of water and waste water. 21<sup>st</sup> edition. Washington, D.C. USA; 2005.
- Bureau of environment and health nonthaburi municipality [Online]. [cited 2010 Jan 20]; Available from: URL:<http://www.behn.go.th/dirt.php>
- Cakir A, Ozmihei S, Kargi F. Comparison of bio-hydrogen production from hydrolyzed wheat starch by mesophilic and thermophilic dark fermentation. *Int J Hydrogen Energy* 2010;35:13214-13218.
- Caldwell ME, Tanner RS, Suflita JM. Microbial metabolism of benzene and the oxidation of ferrous iron under anaerobic condition: implications for bioremediation. *Anaerobe* 1999;5:595-603.
- Chen WH, Chen SY, Khanal SK, Sung S. Kinetic study of biological hydrogen production by anaerobic fermentation. *Int J Hydrogen Energy* 2006;31: 2170-2178.
- Das D, Veziroğlu TN. Hydrogen production by biological processes: a survey of literature. *Int J Hydrogen Energy* 2001;26:13-28.

- Demirbas A. Hydrogen production from biomass by the gasification processes. *Energy Sources* 2002;24:59-68.
- Ding J, Ren NQ, Liu M, Ding L. Effect of Fe and Fe<sup>2+</sup> on hydrogen production capacity with mixed culture. *Environ Sci* 2004;25:48–53.
- Dubois M, Gilles KA, Hamilton JK, Rebers PA, Smith F. Colorimetric method for determination of sugars and related substances. *Anal Chem* 1956;28:350–356.
- Garcia JL, Patel BKC, Ollivier B. Taxonomic, phylogenetic and ecological diversity of methanogenic archaea. *Anaerobe* 2000;6:205–226.
- George HA, Chen JS. Acidic conditions are not obligatory for onset of butanol formation by *Clostridium beijerinckii* (Synonym *C. butylicum*). *Appl Environ Microbiol* 1983;46:321–327.
- Hallenbeck PC, Ghosh D. Advances in fermentative biohydrogen production: the way forward?. *Trends in Biotechnology* 2009;27:287-297.
- Hallenbeck PC, Ghosh D, Skonieczny MT, Yargeau V. Microbiological and engineering aspects of biohydrogen production. *Indian J Microbiol* 2009;49:48–59.
- Han SK, Shin HS. Enhanced acidogenic fermentation of food waste in a continuous-Low reactor. *Waste Manage Res* 2002;20:110-118.
- Han SK, Shin HS. Biohydrogen production by anaerobic fermentation of food waste. *Int J Hydrogen Energy* 2004;29:569 – 577.
- Haryanto A, Fernando F, Murali N, Adhikari S. Current Status of Hydrogen Production Techniques by Steam Reforming of Ethanol: A Review. *Energy & Fuels* 2005;19:2098-2106.
- Hawkes FR, Forsey H, Premier GC, Dinsdale RM, Hawkes DL, Guwy AJ, Maddy J, Cherryman S, Shine J, Auty D.. Fermentative production of hydrogen from a wheat flour industry co-product. *Bioresour Technol* 2008;99:5020–5029.
- Hawkes FR, Hussy I, Kyazze G, Dinsdale R, Hawkes DL. Continuous dark fermentative hydrogen production by mesophilic microflora: principles and progress. *Int J Hydrogen Energy* 2007;32:172–184.

- Holladay JD, Hu J, King DL, Wang Y. An overview of hydrogen production technologies. *Catalysis Today* 2009;139: 244–260.
- Hu B, Chen S. Pre-treatment of methanogenic granular for immobilized hydrogen fermentation. *Int J Hydrogen Energy* 2007;32:3266-3273.
- Jalan RK, Srivastava VK. Studies on pyrolysis of a single biomass cylindrical pellet-kinetic and heat transfer effect. *J Energy Convers Manage* 1999;40:467-494.
- Kapdan IK, Kargi F. Bio-hydrogen production from waste materials. *Enzyme Microb Technol* 2006;38:569–582.
- Kim SH, Han SK, Shin HS. Feasibility of biohydrogen production by anaerobic co-digestion of food waste and sewage sludge. *Int J Hydrogen Energy* 2004;29: 1607-1616.
- Kotay SM, Das D. Biohydrogen as a renewable energy resource—Prospects and potentials. *Int J Hydrogen Energy* 2008;33: 258 – 263.
- Lay JJ, Fan KS, Hwang JI, Chang JI, Hsu PC. Factors affecting hydrogen production from food wastes by Clostridium-rich composts. *J Environ Eng* 2005; 131:595–602.
- Lay JJ, Lee YJ, Noike T. Feasibility of biological hydrogen production from organic fraction of municipal solid waste. *Water Environ Res* 1999;33:2579–2586.
- Lee YJ, Miyahara T, Noike T. Effect of iron concentration on hydrogen production. *Biores Technol* 2001;80:227–231.
- Li CL, Fang HHP. Fermentative hydrogen production from wastewater and solid wastes by mixed cultures. *Crit Rev Env Sci Technol* 2007;37:1–39.
- Logan BE, Oh SE, Van Ginkel SW. Biological hydrogen production measured in batch anaerobic respirometers. *Environ Sci Technol* 2002;36:2530–2535.
- Lovley DR, Phillips EJP. Organic Matter Mineralization with Reduction of Ferric Iron in Anaerobic Sediments. *Appl Environ Microbiol* 1986;51:683-689.
- Mizuno O, Dinsdale R, Hawkes FR, Hawkes DL, Noike T. Enhancement of hydrogen production from glucose by nitrogen gas sparging. *Bioresource Technol* 2000;73:59–65.

- Mizuno O, Dinsdale R, Hawkes FR, Hawkes DL, Noike T. Enhancement of hydrogen production from glucose by nitrogen gas sparging. *Bioresource Technol* 2000;73:59–65.
- Mohan SV, Babu VL, Sarma PN. Anaerobic biohydrogen production from dairy wastewater treatment in sequencing batch reactor (AnSBR): effect of organic loading rate. *Enzyme Microb Technol* 2007;41:506–515.
- Müller V. Energy conservation in acetogenic bacteria. *Appl Environ Microbiol* 2003; 69:6345–6353.
- Navarro RM, Peña MA, Fierro JLG. Hydrogen Production Reactions from Carbon Feedstocks: Fossil Fuels and Biomass. *Chem Rev* 2007;107:3952–3991
- Oh SE, Ginkel SV, Logan BE, Hu B, Chen S. The relative effectiveness of pH control and heat treatment for enhancing biohydrogen gas production. *Environ Sci Technol* 2003;37:5186–5190.
- Pan J, Zhang R, Mashad HME, Sun H, Ying Y. Effect of food to microorganism ratio on biohydrogen production from food waste via anaerobic fermentation. *Int J Hydrogen Energy* 2008;33:6968-6975.
- Sagnak R, Kapdan IK, Kargi F. Dark fermentation of acid hydrolyzed ground wheat starch for bio-hydrogen production by periodic feeding and effluent removal. *Int J Hydrogen Energy* 2010;35:9630-9636.
- Selemba PA, Merrill MD, Logan BE. The use of stainless steel and nickel alloy as low-cost cathodes in microbial electrolysis cells. *J Power Sources* 2009; 190:271-278.
- Sung S, Raskin L, Duangmanee T, Padmasiri S, Simmons JJ, Hydrogen production by anaerobic microbial communities exposed to repeated heat treatments. In: *Proceedings of the 2002 U.S. DOE hydrogen program review NREL/CP-610-32405.*
- Shin HS, Youn JH, Kim SH. Hydrogen production from food waste in anaerobic mesophilic and thermophilic acidogenesis. *Int J Hydrogen Energy* 2004; 29:1355-1363
- Sterling MC, Lacey RE, Engler CR, Ricke SC. Effects of ammonia nitrogen on H<sub>2</sub> and CH<sub>4</sub> production during anaerobic digestion of dairy cattle manure. *Biores Technol* 2001;77:9–18.

- Thauer RK, Jungermann K, Decker K. Energy conservation in chemotrophic anaerobes. *Bacteriol Rev* 1977;41:100–180.
- Ueno Y, Fukui H, Goto M. Operation of a two-stage fermentation process producing hydrogen and methane from organic waste, *Environ Sci Technol* 2007;41:1413–1419.
- Vazquez IV, Varaldo HMP. Hydrogen production by fermentative consortia. *Renewable and Sustainable Energy Rev* 2009;13:1000-1013.
- Vazquez IV, Ríos-Leal E, Esparza-García F, Cecchi F, Poggi-Varaldo HM. Semi-continuous solid substrate anaerobic reactors for H<sub>2</sub> production from organic waste: mesophilic versus thermophilic regime. *Int J Hydrogen Energy* 2005;30:1383–1391.
- Viollier E, Inglett PW, Hunter K, Roychoudhury AN, Van Cappellen P. The ferrozine method revisited: Fe(II)/Fe(III) determination in natural waters. *Applied Geochemistry* 2000;15:785-790.
- Wang JL, Wan W. Comparison of different pretreatment methods for enriching hydrogen-producing cultures from digested sludge. *Int J Hydrogen Energy* 2008;33:2934-2941.
- Wang J, Wan W. Effect of Fe<sup>2+</sup> concentration on fermentative hydrogen production by mixed cultures. *Int J Hydrogen Energy* 2008;33:1215-1220.
- Wang JL, Wan W. Factors influencing fermentative hydrogen production: A review. *Int J Hydrogen Energy* 2009;34:799-811.
- Yang H, Shen J. Effect of ferrous iron concentration on anaerobic bio-hydrogen production from soluble starch. *Int J Hydrogen Energy* 2006;31:2137-2146.
- Yang P, Zhang R, McGarvey JA, Benemann JR. Biohydrogen production from cheese processing wastewater by anaerobic fermentation using mixed microbial communities. *Int J Hydrogen Energy* 2007;32:4761–4771.
- Yu H, Zhu Z, Hu W, Zhang H. Hydrogen production from rice winery waste-water in an upflow anaerobic reactor by using mixed anaerobic cultures. *Int J Hydrogen Energy* 2002;27:1359–1365.

- Zurawski D, Meyer M, Stegmann R. Fermentative production of biohydrogen from biowaste using digested sewage sludge as inoculums. Tenth International Waste Management and Landfill Symposium, 3-7 October, Cagliari, Italy; 2005.
- Zwietering MH, Jongenburger L, Rombouts FM, Van't R. Modeling the bacterial growth curve. *Appl Environ Microbiol* 1990;56:1875–1881.
- Zhu H, Parker W, Basnar R, Proracki A, Falletta P, Béland M, Seto P. Biohydrogen production by anaerobic co-digestion of municipal food waste and sewage sludges. *Int J Hydrogen Energy* 2008;33:3651-3659.