

REFERENCES

- Adams, R. C., MacLean, F. S., Dixon, J. K., Bennett, F. M., Martin, G. I. and Lough, R. C. (1951), The utilization of organic wastes in N.Z. In: Richard, T. (2001) "Estimating carbon content". Available online: <http://compost.css.cornell.edu/calc/carbon.html>
- Adhikari, R. (2006), Sequential batch and continuous anaerobic digestion of municipal solid waste in pilot scale digesters [Master of Science]. Bangkok: School of Environment, Resources and Development, Asian Institute of Technology.
- Ahring, B. K., Sandberg, M. and Angelidaki, I. (1995), Volatile fatty acids as indicators of process imbalance in anaerobic digesters, *Applied Microbiology and Biotechnology*, **43**, pp. 559-565.
- Akunna, J. C. and Clark, M. (2000), Performance of a granular-bed anaerobic baffled reactor (GRABBR) treating whisky distillery wastewater, *Bioresource Technology*, **7**, 3, pp. 257-261.
- Anderson, G. K., Donnelly, T. and Mckeown, K. J. (1982), Identification and control of inhibition in the anaerobic treatment of industrial wastewater, *Process Biochemistry*, **17**, 4, pp. 28-32.
- APHA, AWWA and WPCF. (2005), Standards Methods for the Examination of Water and Wastewater. 21st ed. American Public Health Association, Washington, DC.
- Argelier, S., Delgenes J.-Ph. and Moletta, R. (1998), Design of acidogenic reactors for the anaerobic treatment of the organic fraction of solid food waste, *Bioprocess Engineering*, **18**, pp. 309-315.
- Asian Institute of Technology. (2004), *Municipal Solid Waste Management in Asia: Asian Regional Research Program on Environmental Technology*. AIT Publication, Bangkok.
- Attal, A., Ehlinger, F., Audic, J. M. and Faup, G. M. (1988), pH inhibition mechanisms of acetogenic acetoclastic and hydrogenophilic populations. In: Florencio, L., Field, J. A. and Lettinga, G. (1995), Substrate competition between methanogens and acetogens during the degradation of methanol in UASB reactors, *Water Research*, **29**, 3, pp. 915-922.
- Babae, A. and Shayegan, J. (2011), Anaerobic digestion of vegetable waste, *Chemical Engineering Transactions*, **24**, pp.1291-1296.

- Babel, S., Fukushi, K. and Sitanrassamee, B. (2004), Effect of acid speciation on solid waste liquefaction in an anaerobic acid digester, *Water Research*, **38**, pp. 2417-2423.
- Banks, C. J., Chesshire, M., Heaven, S. and Arnold, R. (2011), Anaerobic digestion of source-segregated domestic food waste: performance assessment by mass and energy balance, *Bioresource Technology*, **102**, 2, pp. 612-620.
- Barlaz, M. A., Ham, R. K. and Schaefer, D. M. (1990), Methane production from municipal refuse: a review of enhancement techniques and microbial dynamics, *Critical Reviews in Environmental Science and Technology*, **19**, 6, pp. 557-584.
- Bhattacharya, J. K., Kumar, S. and Devotta, S. (2008), Studies on acidification in two-phase biomethanation process of municipal solid waste, *Waste Management*, **28**, 1, pp. 164-169.
- Borzacconi, L., Lopez, I. and Anido, C. (1997), Hydrolysis constant and VFA inhibition in acidogenic phase of MSW anaerobic degradation, *Water Science and Technology*, **36**, 6-7, pp. 479-484.
- Bouallagui, H., Cheikh, R. B., Marouani, L. and Hamdi, M. (2003), Mesophilic biogas production from fruit and vegetable waste in a tubular digester, *Bioresource Technology*, **86**, 1, pp. 85-89.
- Bouallagui, H., Lahdheb, H., Romdan, E. B., Rachdi, B. and Hamdi, M. (2009), Improvement of fruit and vegetable waste anaerobic digestion performance and stability with co-substrates addition, *Journal of Environmental Management*, **90**, 5, pp. 1844-1849.
- Bouallagui, H., Touhami, Y., Cheikh, R. B. and Hamdi, M. (2005), Bioreactor performance in anaerobic digestion of fruit and vegetable wastes: review, *Process Biochemistry*, **40**, pp. 989-995.
- Buivid, M. G. and Wise, D. L. (1981), Fuel gas enhancement by controlled landfilling of municipal solid waste, *Resources and Conservation*, **6**, 1, pp. 3-20.
- Cherrington, C. A., Hinton, M., Mead, G. C. and Chopra, I. (1991), Organic acids: chemistry, antibacterial activity and practical application, *Advances in Microbial Physiology*, **32**, pp. 87-107.
- Cho, J. K. and Park, S. C. (1995), Biochemical methane potential and solid state anaerobic digestion of Korean food wastes, *Bioresource Technology*, **52**, 3, pp. 245-253.

- Chu, C. F., Li, Y. Y., Xu, K. Q., Ebie, Y., Inamori, Y. and Kong, H. N. (2008), A pH-and temperature-phased two-stage process for hydrogen and methane production from food waste, *International Journal of Hydrogen Energy*, **33**, 18, pp. 4739-4746.
- Chynoweth, D. P., Owens J, O'Keefe, D, Earle, J. F. K, Bosch, G. amd Legrand R. (1992), Sequential batch anaerobic composting of the organic fraction of municipal solid waste, *Water Science and Technology*; **25**, pp. 327-339.
- Chynoweth, D. P., Svoronos, S.A., Lyberatos, G., Harman, J. L., Pullammanappallil P., Owens, J. M. and Peck, M. J. (1994), Real-time expert system control of anaerobic digestion, *Water Science and Technology*, **30**, 12, pp. 21-29.
- Converti, A., Del Borghi, A., Zilli, M., Arni, S. and Del Borghi, M. (1999), Anaerobic digestion of the vegetable fraction of municipal refuses: mesophilic versus thermophilic conditions, *Bioprocess Engineering*, **21**, pp. 371-376.
- Cysneiros, D., Banks, C. J. and Heaven, S. (2008), Anaerobic digestion of maize in coupled leach-bed and anaerobic filter reactors, *Water Science and Technology*, **58**, pp. 1505-1511.
- Cysneiros, D., Banks, C. J., Heaven, S. and Karatzas, K. A. G. (2012), The effect of pH control and 'hydraulic flush' on hydrolysis and volatile fatty acids (VFA) production and profile in anaerobic leach bed reactors digesting a high solids content substrate, *Bioresource Technology*, **123**, pp. 263-271.
- Daffonchio, D., Thaveesri, J. and Verstraete, W. (1995), Contact angle measurement and cell hydrophobicity of granular sludge from upflow anaerobic sludge bed reactor, *Applied and Environmental Microbiology*, **61**, 10, pp. 3676-3680.
- Demirel, B. and Yenigun, O. (2002), The effects of change in volatile fatty acid (VFA) composition on methanogenic upflow filter reactor (UFAF) performance, *Environmental Technology*, **23**, 10, pp. 1179-1187.
- Dilallo, R. and Alberton, O. E. (1961), Volatile acids by direct titration, *Journal Water Pollution Control Federation*, **33**, 4, pp. 356-365.
- Duarte, A. C. and Anderson, G. K. (1982), Inhibition modelling in anaerobic digestion, *Water Science and Technology*, **14**, 6-7, pp. 749-763.
- Fang, H. H. P. and Liu, H. (2002), Effect of pH on hydrogen production from glucose by mixed culture, *Bioresource Technology*, **82**, 1, pp. 87-93.

- Fernández J., Pérez, M. and Romero L. I. (2008), Effect of substrate concentration on dry mesophilic anaerobic digestion of organic fraction of municipal solid waste (OFMSW), *Bioresource Technology*, **99**, 14, pp. 6075-6080.
- Florencio, L., Field, J. A. and Lettinga, G. (1995), Substrate competition between methanogens and acetogens during the degradation of methanol in UASB reactors, *Water Research*, **29**, 3, pp. 915-922.
- Forster-Carneiro, T., Pérez, M. and Romero, L. I. (2008), Influence of total solid and inoculum contents on performance of anaerobic reactors treating food waste, *Bioresource Technology*, **99**, 15, pp. 6994-7002.
- Fukuzaki, S., Nishio, N. and Nagai, S. (1990), Kinetics of the methanogenic fermentation of acetate, *Applied and Environmental Microbiology*, **56**, 10, pp. 3158-3163.
- Gerardi, M. H. (2003), *The Microbiology of Anaerobic Digesters*. Wiley-Interscience, New Jersey.
- Girovich, M. J. (1996), *Biosolids Treatment and Management Process for Beneficial Use*. Marcel Dekker, New York.
- Gómez, X., Cuetos, M. J., Cara, J., Morán, A. and García, A. I. (2006), Anaerobic co-digestion of primary sludge and the fruit and vegetable fraction of the municipal solid wastes conditions for mixing and evaluation of the organic loading rate, *Renewable Energy*, **31**, 12, pp. 2017-2024.
- Gorton M., Sauer, J. and Supatpongkul, P. (2011), Wet Markets, Supermarkets and the “Big Middle” for Food Retailing in Developing Countries: Evidence from Thailand, *World Development*, **39**, 9, pp. 1624-1637.
- Grady, C. P. L. and Lim, H. C. (1980), *Biological Wastewater Treatment*. Marcel Dekker Inc, New York.
- Gujer, W. and Zehnder, A. J. B. (1983), Conversion processes in anaerobic digestion, *Water Science and Technology*, **15**, 8-9, pp. 127-167.
- Gunaseelan, V. N. (1997), Anaerobic digestion of biomass for methane production: a review, *Biomass and Bioenergy*, **13**, 1-2, pp. 83-114.
- Gunnerson C. G. and Stuckey, D. (1986), *World Bank technical paper number 49 Anaerobic digestion principles and practices for biogas systems*, The World Bank, Washington, D.C.
- Han, S. K. and Shin, H. S. (2002), Enhanced acidogenic fermentation of food waste in a continuous-flow reactor, *Waste Management & Research*, **20**, 2, pp. 110-118.

- Han, S. K. and Shin, H. S. (2004), Performance of an innovative two-stage process converting food waste to hydrogen and methane, *Journal of the Air & Waste Management Association*, **54**, 2, pp. 242-249.
- Hanaki, K., Hirunmasuwan, S. and Matsuo, T. (1994). Protection of methanogenic bacteria from low pH and toxic materials by immobilization using polyvinyl alcohol, *Water Research*, **28**, 4, pp. 877-885.
- Hans-Joachim Jördening and Winter, J. (2005), *Environmental Biotechnology*. Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim.
- Hao, Y. J., Wu, W. X., Wu, S. W., Sun, H. and Chen, Y. X. (2008), Municipal solid waste decomposition under oversaturated condition in comparison with leachate recirculation, *Process Biochemistry*, **43**, 1, pp. 108-112.
- Hartmann, H. and Ahring, B. K. (2006), Strategies for the anaerobic digestion of the organic fraction of municipal solid waste: an overview, *Water Science and Technology*, **53**, 8, pp. 7-22.
- Hattingh, W. H. J., Thiel, P. G. and Siebert, M. L. (1967), Determination of protein content of anaerobic digesting sludge, *Water Research*, **1**, 3, pp. 185-189.
- Henze, M., Harremoës, P., Jansen, J. L. C. and Arvin, E. (2002), *Wastewater Treatment Biological and Chemical Processes*. 3rd edition. Springer, Heidelberg.
- Heo, N. H., Park, S. C. and Kang, H. (2004), Effects of mixture ratio and hydraulic retention time on single-stage anaerobic co-digestion of food waste and waste activated sludge, *Journal of Environmental Science and Health. Part A, Toxic/Hazardous Substances & Environmental*, **39**, 7, pp. 1739-1756.
- Hill, D. T. and Holmberg, R. D. (1988), Long chain fatty acid relationships in anaerobic digestion of swine waste, *Biological Wastes*, **23**, 3, pp. 195-214.
- Hill, D. T., Cobb, S. A. and Bolte, J. P. (1987), Using volatile fatty acid relationships to predict anaerobic digester failure. In: Rincón, B., Borja, R., Martín, M. A. and Martín, A. (2009), Evaluation of the methanogenic step of a two-stage anaerobic digestion process of acidified olive mill solid residue from a previous hydrolytic-acidogenic step, *Waste Management*, **29**, 9, pp. 2566-2573.
- Horiuchi, J. I., Shimizu, T., Tada, K., Kanno, T. and Kobayashi, M. (2002), Selective production of organic acids in anaerobic acid reactor by pH control, *Bioresource Technology*, **82**, 3, pp. 209-213.

- Hwang, M. H., Jang, N. J., Hyun, S. H. and Kim, I. S. (2004), Anaerobic bio-hydrogen production from ethanol fermentation: the role of pH, *Journal of Biotechnology*, **111**, 3, pp. 297-309.
- Jagadabhi, P. S., Kaparaju, P. and Rintala, J. (2010), Effect of micro-aeration and leachate replacement on COD solubilization and VFA production during mono-digestion of grass-silage in one-stage leach-bed reactors, *Bioresource Technology*, **101**, 8, pp. 2818-2824.
- Jagadabhi, P. S., Lehtomäki, A. and Rintala, J. (2008), Co-digestion of grass silage and cow manure in a CSTR by re-circulation of alkali treated solids of the digestate, *Environmental Technology*, **29**, 10, pp. 1085-1093.
- Jash, T. and Ghosh, D. N. (1996), Studies on the solubilization kinetics of solid organic residues during anaerobic biomethanation, *Energy*, **21**, 7-8, pp. 725-730.
- Kabara, J. J. and Eklund, T. (1991), Organic acids and Esters. In: Russell, N. J. and Gould, G. W. (2003), *Food Preservatives*. Glasgow Blachie, New York.
- Kayee, P. (2003), A study of acids production from anaerobic digestion from market waste [Master of Science Thesis in Environmental Technology]. Bangkok: School of Energy, Environment and Materials, King Mongkut's University of Technology Thonburi.
- Kayhanian, M. and Hardy, S. (1994), The impact of four design parameters on the performance of a high-solids anaerobic digestion of municipal solid waste for fuel gas production, *Environmental Technology*, **15**, 6, pp. 557-567.
- Kayhanian, M. (1999), Ammonia inhibition in high-solids biogasification: an overview and practical solutions, *Environmental Technology*, **20**, 4, pp. 355-365.
- Khanal, S. K. (2008), *Anaerobic Biotechnology for Bioenergy Production: Principles and Applications*. Wiley-Blackwell, Singapore.
- Kivaisi, A. K. and Mtila, M. (1998), Production of biogas from water hyacinth (*Eichhornia crassipes*) (Mart) (Solms) in a two-stage bioreactor, *World Journal of Microbiology & Biotechnology*, **14**, pp. 125-131.
- Knol, W., Michael, Van Der Most, M. M. and De Waart, J. (1978), Biogas production by anaerobic digestion of fruit and vegetable waste. A preliminary study, *Journal of the Science of Food and Agriculture*, **29**, 9, pp. 822-830.

- Kroeker, E. J., Schulte, D. D., Sparling, A. B. and Lapp, H. M. (1979), Anaerobic treatment process stability, *Journal of the Water Pollution Control Federation*, **51**, 4, pp.718-727.
- Lane A. G. (1979), Methane from anaerobic digestion of fruit and vegetable processing waste. In: Bouallagui, H., Touhami, Y., Cheikh, R. B. and Hamdi, M. (2005), Bioreactor performance. in anaerobic digestion of fruit and vegetable wastes. review, *Process Biochemistry*, **40**, 3-4, pp. 989-995.
- Lane, A. G. (1984), Laboratory scale anaerobic digestion of fruit and vegetable solid waste. In: Gunaseelan, V. N. (1997), Anaerobic digestion of biomass for methane production: A review, *Biomass and Bioenergy*, **13**, 1-2, pp. 83-114.
- Lay, J. J., Li, Y. Y., Noike, T., Endo, J. and Ishimoto, S. (1997), Analysis of environmental factors affecting methane production from high-solids organic waste, *Water Science and Technology*, **36**, 6-7, pp. 493-500.
- Lehtomäki, A., Huttunen, S., Lehtinen, T. M. and Rintala, J. A. (2008), Anaerobic digestion of grass silage in batch leach bed processes for methane production, *Bioresource Technology*, **99**, 8, pp. 3267-3278.
- Li, D., Sun, Y., Kong, X., Li, L., Yuan, Z. and Ma, L. (2010). Effect of ph on anaerobic fermentative products distribution for kitchen waste, paper presented in the, *Mechanic Automation and Control Engineering (MACE)*, pp. 3935-3938.
- Liu, D. W., Liu, D. P., Zeng, R. J. and Angelidaki, I. (2006), Hydrogen and methane production from household solid waste in the two-stage fermentation process, *Water Research*, **40**, 11, pp. 2230-2236.
- Lü, F., He, P. J., Hao, L. P. and Shao, L. M. (2008), Impact of recycled effluent on the hydrolysis during anaerobic digestion of vegetable and flower waste, *Water Science and Technology*, **58**, 8, pp. 1637-1643.
- Lyberatos, G. and Skiadas, I. V. (1999), Modelling of anaerobic digestion-a review, *Global Nest : the International Journal*, **1**, 2, pp. 63-76.
- Maestrojufin, G. M. and Boone, D. R. (1991) Characterization of *Methanosarcina barkeri* MS r and 227, *Methanosarcina rnazei* S-66, and *Methanosarcina vacuolata* Z-761 r. In: Florencio, L., Field, J. A. and Lettinga, G. (1995), Substrate competition between methanogens and acetogens during the degradation of methanol in UASB reactors, *Water Research*, **29**, 3, pp. 915-922.

- Maharaj, I. and Elefsiniotis, P. (2001), The role of HRT and low temperature on the acid-phase anaerobic digestion of municipal and industrial wastewaters, *Bioresource Technology*, **76**, 3, pp. 191-197.
- Marouani, L, Bouallagui, H, Ben Cheikh, R. and Hamdi, M. (2002). Biomethanation of green wastes of wholesale market of Tunis, paper presented in the, *International Symposium on Environmental Pollution Control and Waste Management (EPCOWM 2002)*, pp. 318-323. Tunis.
- Mata-Alvarez, J. (2003), *Biomethanization of the Organic Fraction of Municipal Solid Wastes*. IWA Publishing, London.
- Mata-Alvarez, J. and Llabrés, P. (1992), Anaerobic digestion of the Barcelona central food market organic wastes: experimental study, *Bioresource Technology*, **39**, 1, pp. 39-48.
- Mata-Alvarez, J., Macé, S. and Llabrés, P. (2000), Anaerobic digestion of organic solid wastes. An overview of research achievements and perspectives, *Bioresource Technology*, **74**, 1, pp. 3-16.
- Mata-Alvarez, J., Mtz-Viturtia, A., Llabres-Luengo, P. and Cecchi, F. (1993), Kinetic and performance study of a batch two-phase anaerobic digestion of fruit and vegetable wastes, *Biomass and Bioenergy*, **5**, 6, pp. 481-488.
- McCarty, P. L. (1964). Anaerobic waste treatment fundamentals, Part 3: Toxic materials and their control, *Public Works*, **95**, 11, pp. 91-94.
- Miron, Y., Zeeman, G., van Lier, J. B. and Lettinga, G. (2000), The role of sludge retention time in the hydrolysis and acidification of lipids, carbohydrates and proteins during digestion of primary sludge in CSTR systems, *Water Research*, **34**, 5, pp.1705-1713.
- Misi, S. N. and Forster, C. F. (2001), Batch co-digestion of multi-components agro-wastes, *Bioresource Technology*, **80**, 1, pp. 19-28.
- Monnet, F. (2003) "An introduction to anaerobic digestion of organic wastes: final report". Available online: http://www.biogasmax.co.uk/media/introanaerobicdigestion_073323000_1011_24042007.pdf
- Murto, M., Björnsson, L. and Mattiasson, B. (2004), Impact of food industrial waste on anaerobic co-digestion of sewage sludge and pig manure, *Journal of Environmental Management*, **70**, 2, pp. 101-107.

- Nayono, S. E., Gallert, C. and Winter, J. (2009), Food waste as a co-substrate in a fed-batch anaerobic biowaste digester for constant biogas supply, *Water Science and Technology*, **59**, 6, pp. 1169-1178.
- Nielsen, H. B., Mladenovska, Z., Westermann, P. and Ahring, B. K. (2004), Comparison of two-stage thermophilic (68 °C/55 °C) anaerobic digestion with one-stage thermophilic (55 °C) digestion of cattle manure, *Biotechnology and Bioengineering*, **86**, 3, pp. 291-300.
- O'Dwyer, J. P. (2005). Developing a fundamental understanding of biomass structural features responsible for enzymatic digestibility. PhD dissertation, Texas A&M University, College Station, Texas.
- Park, W. J., Ahn, J. H. and Lee, C. K. (2009), Solubilization of sewage sludge using microwave irradiation, *Environmental Engineering Research*, **14**, pp. 48-52.
- Pavan, P., Battistoni, P., Cecchi, F. and Mata-Alvarez, J. (2000), Two-phase anaerobic digestion of source sorted OFMSW (organic fraction of municipal solid waste): performance and kinetic study, *Water Science and Technology*, **41**, 3, pp. 111-118.
- Pollution Control Department, Ministry of Natural Resources and Environment (2011), *Thailand State of Pollution 2010*. BTS Press, Bangkok.
- Polprasert, C. (1996), *Organic Waste Recycling*. John Wiley & sons, London.
- Presser, K. A., Ratkowsky, D. A. and Ross, T. (1997), Modeling the growth rate of *Escherichia coli* as a function of pH and lactic acid concentration, *Applied and Environmental Microbiology*, **63**, 6, pp. 2355-2360.
- Rajeshwari, K. V., Lata, K., Pant, D. C. and Kishore, V. V. N. (2001), A novel process using enhanced acidification and a UASB reactor for biomethanation of vegetable market waste, *Waste Management & Research*, **19**, 4, pp. 292-300.
- Ramsay, Ian R. and Pullammanappallil, P. C. (2005), Full-scale application of a dynamic model for high-rate anaerobic wastewater treatment systems, *Journal of Environmental Engineering*, **131**, 7, pp. 1030-1036.
- Ranade, D. R., Yeole, T. Y. and Godbole, S. H. (1987), Production of biogas from market waste, *Biomass*, **13**, 3, pp. 147-153.
- Rao, M. S. and Singh, S. P. (2004), Bioenergy conversion studies of organic fraction of MSW: kinetic studies and gas yield–organic loading relationships for process optimization, *Bioresource Technology*, **95**, 2, pp. 173-185.

- Reinhart, D. R., and Al-Yousfi, A. B. (1996), The impact of leachate recirculation on municipal solid waste landfill operating characteristics, *Waste Management and Research*, **14**, 4, pp. 337-346.
- Rilling, N. (2005), *Anaerobic Fermentation of Wet and Semidry Garbage Waste Fractions*, in *Environmental Biotechnology: Concepts and Applications* (eds H.-J. Jördening and J. Winter). Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim,
- Rincón, B., Borja, R., Martín, M.A. and Martín, A. (2009), Evaluation of the methanogenic step of a two-stage anaerobic digestion process of acidified olive mill solid residue from a previous hydrolytic-acidogenic step, *Waste Management*, **29**, 9, pp. 2566-2573.
- Russell, J. B. and Diez-Gonzalez, F. (1998), The effects of fermentation acids on bacterial growth, *Advances in Microbial Physiology*, **39**, pp. 205-234.
- Russell, J. B. and Wilson, D. B. (1996), Why are ruminal cellulolytic bacteria unable to digest cellulose at Low pH?. In: Cysneiros, D., Banks, C. J., Heaven, S. and Karatzas, K. A. G. (2012), The effect of pH control and 'hydraulic flush' on hydrolysis and Volatile Fatty Acids (VFA) production and profile in anaerobic leach bed reactors digesting a high solids content substrate, *Bioresource Technology*, **123**, pp. 263-271.
- Ruynal, J., Delgenes, J. P. and Moletta, R. (1998), Two phase anaerobic digestion of solid waste by a multiple liquefaction reactors process, *Bioresource Technology*, **65**, 1-2, pp. 97-103.
- Sánchez, E. , Borja, R., Weiland, P., Travieso, L. and Martín, A. (2001), Effect of substrate concentration and temperature on the anaerobic digestion of piggery waste in a tropical climate, *Process Biochemistry*, **37**, 5, pp. 483-489.
- Sanphoti, N., Towprayoon, S., Chaiprasert, P. and Nopharatanad, A. (2006), The effects of leachate re-circulation with supplemental water addition on methane production and waste decomposition in a simulated tropical landfill, *Journal of Environmental Management*, **81**, 1, pp. 27-35.
- Sharma, V. K., Testa, C., Cornacchia, G., Lastella, G. and Farina, R. (1999), Anaerobic digestion of semi-solid organic waste available from orthofruit market: Preliminary experimental results, *Energy Conversion and Management*, **40**, 3, pp. 287-304.

- Siegert, I. and Banks, C. J. (2005), The effect of volatile fatty acid additions on the anaerobic digestion of cellulose and glucose in batch reactors, *Process Biochemistry*, **40**, 11, pp. 3142-3418.
- Solera, R., Romero, L. I. and Sales, D. (2002), The evolution of biomass in a two-phase anaerobic treatment process during start-up, *Chemical & Biochemical Engineering Quarterly*, **16**, 1, pp. 25-29.
- Speece, R. E. (1996), *Anaerobic Biotechnology for Industrial Wastewaters*. Archae Press, Tennessee.
- Sponza D. T. and Ağdağ O. N. (2004), Impact of leachate recirculation and recirculation volume on stabilization of municipal solid wastes in simulated anaerobic bioreactors, *Process Biochemistry*, **39**, 12, pp.2157-2165.
- Stabnikova, O., Liu, X. Y. and Wang, J. Y. (2008), Anaerobic digestion of food waste in a hybrid anaerobic solid-liquid system with leachate recirculation in an acidogenic reactor, *Biochemical Engineering Journal*, **41**, 2, pp.198-201.
- Sundberg, C. and Jönsson, H. (2005), Process inhibition due to organic acids in fed-batch composting of food waste-influence of starting culture, *Biodegradation*, **16**, pp. 205-213.
- Suwannakham, S. and Yang, S. T. (2005), Enhanced propionic acid fermentation by *Propionibacterium acidipropionici* mutant obtained by adaptation in a fibrous-bed bioreactor, *Biotechnology and Bioengineering*, **91**, 3, pp. 325-337.
- Tchobanoglous, G., Theisen, H. and Vigil, S. (1993), *Integrated Solid Waste Management Engineering Principles and Management Issues*. McGraw-Hill, New York.
- Ten Brummeler, E., Horbach, H. C. J. M. and Koster, I. W. (1991), Dry anaerobic batch digestion of the organic fraction of municipal solid waste, *Journal of Chemical Technology and Biotechnology*, **50**, 2, pp. 191-209.
- Tenca, A., Schievano, A., Perazzolo, F., Adani, F. and Oberti, R. (2011), Biohydrogen from thermophilic co-fermentation of swine manure with fruit and vegetable waste: Maximizing stable production without pH control, *Bioresource Technology*, **102**, 18, pp. 8582-8588.
- Themelis, N. J. and Verma S. (2004), The better option: anaerobic digestion of organic waste in MSW, *Waste Management World*, January/February.

- Therion, J. J., Kistner, A., Kornelius, J. H. (1982), Effect of pH on growth-rates of rumen amylolytic and lactilytic bacteria, *Applied and Environmental Microbiology*, **44**, 2, pp. 428-434.
- Towprayoon, S., Kumming, V. and Thurajane, S. (2003). Anaerobic digestion of food waste and market waste with recirculation system, paper presented in the, *Second regional conference on energy technology towards a clean environment*, Thailand.
- Tsao, G. T. (1984), *Anaerobic Digestion and Carbohydrate Hydrolysis of Waste*. Elsevier Applied Science, London.
- Tubtong, C. (2007), The development of anaerobic digestion using market waste for energy purpose [Doctor of Philosophy in Environmental Technology]. Bangkok: School of Energy, Environment and Materials, King Mongkut's university of technology Thonburi.
- Turajane, S. (2001), Enhancing methane production of fruit and vegetable waste using dry anaerobic digestion with leachate recirculation [Master of Engineering in Environmental Technology]. Bangkok: School of Energy, Environment and Materials, King Mongkut's university of technology Thonburi.
- Vavilin, V. A., Rytov, S. V., Lokshina, L. Y., Pavlostathis, S. G. and Barlaz, M. A. (2003), Distributed model of solid waste anaerobic digestion: effects of leachate recirculation and pH adjustment, *Biotechnology and Bioengineering*, **81**, 1, pp. 66-73.
- Vavilin, V. A., Rytov, S. V., Lokshina, L. Y., Rintala, J. A. and Lyberatos, G. (2001), Simplified hydrolysis models for the optimal design of two-stage anaerobic digestion, *Water Research*, **35**, 17, pp. 4247-4251.
- Veeken, A. H. and Hamelers, B. V. (2000), Effect of substrate-seed mixing and leachate recirculation on solid state digestion of biowaste, *Water Science and Technology*, **41**, 3, pp. 255-262.
- Veeken, B. A. and Hamelers, B. (1999), Effect of temperature on hydrolysis rate of selected biowaste components, *Bioresource Technology*, **69**, 3, pp. 249-254.
- Verink, J., Joshi, D. L., Jie, Y. and Joshi, N. (1993), *Reversing Anaerobic Upflow System*. Asian Institute of Technology, Bangkok.
- Verrier, D., Roy, F. and Albagnac, G. (1987), Two-phase methanization of solid vegetable wastes, *Biological Wastes*, **22**, 3, pp. 163-177.
- Viswanath, P., Devi, S. S. and Nand, K. (1992), Anaerobic digestion of fruit and vegetable processing wastes for biogas production, *Bioresource Technology*, **40**, 1, pp. 43-48.

- Viturtia, A. M. and Meta-Alvarez, J. (1989), Two-phase anaerobic digestion of a mixture of fruit and vegetable wastes, *Biological Wastes*, **29**, 3, pp. 189-199.
- Wang, J. Y., Zhang, H., Stabnikova, O., Ang, S. S. and Tay, J. H. (2005), A hybrid anaerobic solid-liquid system for food waste digestion, *Water Science and Technology*, **52**, 1/2, pp. 223-228.
- Wang, Y. S., Byrd, C. S. and Barlaz, M. A. (1994), Anaerobic biodegradability of cellulose and hemicellulose in excavated refuse samples using a biochemical methane potential assay, *Journal of Industrial Microbiology*, **13**, pp. 147-153.
- Wang, Y., Zhang, Y., Wang, J. and Meng, L. (2009), Effects of volatile fatty acid concentrations on methane yield and methanogenic bacteria, *Biomass and Bioenergy*, **33**, 5, pp. 848-853.
- Ward, A. J., Hobbs, P. J., Holliman, P. J. and Jones, D. L. (2008), Optimisation of the anaerobic digestion of agricultural resources, *Bioresource Technology*, **99**, 17, pp. 7928-7940.
- Warnecke, T. and Gill, R. T. (2005), Organic acid toxicity, tolerance, and production in *Escherichia coli* biorefining applications, *Microbial Cell Factories*, **4**, 25, pp. 25-32.
- Weiland, P. (2010), Biogas production: current state and perspectives, *Applied Microbiology and Biotechnology*, **85**, pp. 849-860.
- Wijekoon, K. C., Visvanathan, C. and Abeynayaka, A. (2011), Effect of organic loading rate on VFA production, organic matter removal and microbial activity of a two-stage thermophilic anaerobic membrane bioreactor, *Bioresource Technology*, **102**, 9, pp. 5353-5360.
- Witty, W. and Märk, H. (1983), Anaerobic Waste Water Treatment. In: Mtz.-Viturtia, A., Mata-Alvarez, J. and Cecchi, F. (1995), Two-phase continuous anaerobic digestion of fruit and vegetable wastes, *Resources, Conservation and Recycling*, **13**, 3-4, pp. 257-267.
- Worrell, W. A. and Reinhart, D. R. (2002), *Solid Waste Engineering*. Brooks/Cole, California.
- Wu, W., Jai, M., Thiele, J. and Zeikus, G. (1995), Effect of storage on the performance of methanogenic granules, *Water Research*, **29**, 6, pp. 1445-1452.
- Xie, S., Lawlor, P. G., Frost, J. P., Wu, G. and Zhan, X. (2012), Hydrolysis and acidification of grass silage in leaching bed reactors, *Bioresource Technology*, **114**, pp. 406-413.

- Xu, F., Shi, J., Lv, W., Yu, Z. and Li, Y. (2013), Comparison of different liquid anaerobic digestion effluents as inocula and nitrogen sources for solid-state batch anaerobic digestion of corn stover, *Waste Management*, **33**, 1, pp. 26-32.
- Xu, S. Y., Lam, H. P., Karthikeyan, O. P. and Wong, J. W. C. (2011), Optimization of food waste hydrolysis in leach bed coupled with methanogenic reactor: Effect of pH and bulking agent, *Bioresource Technology*, **102**, 4, pp. 3702-3708.
- Yamaguchi, M., Minami, K., Tanimoto, Y. and Okamura, K. (1989), Effects of volatile fatty acids on methanogenesis of methanol and of pregrowth with methanol on acetate utilization by methanogens, *Journal of Fermentation and Bioengineering*, **68**, 6, pp. 428-432.
- Yeole, T. Y., Gokhale, S., Hajarnis, S. R. and Ranade, D. R. (1996), Effect of brackish water on biogas production from cattle dung and methanogens, *Bioresource Technology*, **58**, 3, pp. 323-325.
- Zhang, B., He, P. J., Lü, F., Shao, L. M. and Wang, P. (2007), Extracellular enzyme activities during regulated hydrolysis of high-solid organic wastes, *Water Research*, **41**, 19, pp. 4468-4478.
- Zhang, B., Zhang, L. L., Zhang, S. C., Shi, H. Z. and Cai, W. M. (2005), The influence of pH on hydrolysis and acidogenesis of kitchen wastes in two-phase anaerobic digestion, *Environmental Technology*, **26**, 3, pp. 329-339.
- Zhang, R., Hamed El-Mashad, M., Hartman, K., Wang, F., Guangqing, L., Choate, C. and Gamble, P. (2007), Characterization of food waste as feedstock for anaerobic digestion, *Bioresource Technology*, **98**, 4, pp. 929-935.
- Zhu, H., Parkerb, W., Basnarc, R., Prorackic, A., Fallettaa, P., Be'landa, M. and Setoa, P. (2008), Biohydrogen production by anaerobic co-digestion of municipal food waste and sewage sludges, *International Journal of Hydrogen Energy*, **33**, 14, pp. 3651-3659.
- Zoetmayer, R. J., Matthijsen, A. J. C. M., Cohen, A. and Boelhouwer, C. (1982), Product inhibition in the acid forming stages of the anaerobic digestion process, *Water Science and Technology*, **16**, 5, pp. 633-639.