

DAFTAR PUSTAKA

- Abeng, D., Sutaryo, S., Purnomoadi, A., Susanto, S., Purbowati, E., Adiwintarti, R., Purwasih, R., & Widiharih, T. (2024). Optimization of methane production from dairy cow manure and germinated papaya seeds using response surface methodology. *Case Studies in Chemical and Environmental Engineering*, 10(August), 100927. <https://doi.org/10.1016/j.cscee.2024.100927>
- Ahmad, R. M., Javied, S., Aslam, A., Alamri, S., Zaman, Q. U., Hassan, A., & Noor, N. (2024). Optimizing Biogas Production and Digestive Stability through Waste Co-Digestion. *Sustainability (Switzerland)*, 16(7). <https://doi.org/10.3390/su16073045>
- Alonso, Á., & Camargo, J. A. (2006). Ammonia toxicity to the freshwater invertebrates *Polycelis felina* (Planariidae, Turbellaria) and *Echinogammarus echinosetosus* (Gammaridae, Crustacea). *Fresenius Environmental Bulletin*.
- Amani, T., Nosrati, M., Mousav, S. M., & Kermanshahi, R. K. (2011). Study of syntrophic anaerobic digestion of volatile fatty acids using enriched cultures at mesophilic conditions. *International Journal of Environmental Science and Technology*. <https://doi.org/10.1007/BF03326198>
- Anika, O. C., & Akin-Osanaiye, B. C. (2020). Effect of the nutritional composition of fruit wastes on methane gas production and energy potential. *Environmental Engineering and Management Journal*. <https://doi.org/10.30638/eemj.2020.103>
- AOAC. (2005). Official Method of Analysis of The Association at Official Analytical Chemist. In W. Horwitz & G. W. Jr. Latimer (Eds.), *AOAC International* (18th ed., Vol. 11). AOAC International.
- Avena, L. G., Almendrala, M., & Caparanga, A. (2023). Effects of thermal pretreatment and biotin supplementation on the anaerobic digestion of pineapple (*Ananas comosus*) wastes, kinetics of methane production, and statistical analysis. *Energy Reports*. <https://doi.org/10.1016/j.egy.2023.09.184>
- Azevedo, A., Lapa, N., Moldão, M., & Duarte, E. (2023). Opportunities and challenges in the anaerobic co-digestion of municipal sewage sludge and fruit and vegetable wastes: A review. In *Energy Nexus*. <https://doi.org/10.1016/j.nexus.2023.100202>
- Azevedo, A., Lapa, N., Moldão, M., Gominho, J., & Duarte, E. (2025). Fruit and vegetable wastes as co-substrates in anaerobic co-digestion: Effect of storage temperature on physicochemical properties and biogas production. *Energy Nexus*, 17, 100354. <https://doi.org/10.1016/j.nexus.2024.100354>
- Ban, Q., Li, J., Zhang, L., Zhang, Y., & Jha, A. K. (2013). Phylogenetic diversity of methanogenic archaea and kinetics of methane production at slightly acidic conditions of an anaerobic sludge. *International Journal of Agriculture and Biology*.
- Béline, F., Dabert, P., Peu, P., & Girault, R. (2010). Methane production from farm effluents in France and Europe: Principle, inventory and prospects. *Fourrages*.
- Bolt, H. M. (2023). Methane. In *Encyclopedia of Toxicology, Fourth Edition: Volume 1-9* (Vol. 6, pp. V6-187). <https://doi.org/10.1016/B978-0-12-824315-2.00224-4>
- BPS. (2022). *Produksi Tanaman Buah-Buahan*. Badan Pusat Statistik.

<https://www.bps.go.id/linkTableDinamis/view/id/960>.

- Cádiz-Gurrea, M. de la L., Villegas-Aguilar, M. del C., Leyva-Jiménez, F. J., Pimentel-Moral, S., Fernández-Ochoa, Á., Alañón, M. E., & Segura-Carretero, A. (2020). Revalorization of bioactive compounds from tropical fruit by-products and industrial applications by means of sustainable approaches. *Food Research International*. <https://doi.org/10.1016/j.foodres.2020.109786>
- Chávez-Fuentes, J. J., Capobianco, A., Barbušová, J., & Hutňan, M. (2017). Manure from Our Agricultural Animals: A Quantitative and Qualitative Analysis Focused on Biogas Production. *Waste and Biomass Valorization*, 8(5), 1749–1757. <https://doi.org/10.1007/s12649-017-9970-5>
- Cirne, D. G., Lehtomäki, A., Björnsson, L., & Blackall, L. L. (2007). Hydrolysis and microbial community analyses in two-stage anaerobic digestion of energy crops. *Journal of Applied Microbiology*. <https://doi.org/10.1111/j.1365-2672.2006.03270.x>
- Dai, B., Xu, J., He, Y., Xiong, P., Wang, X., Deng, Y., Wang, Y., & Yin, Z. (2015). Acid inhibition during anaerobic digestion of biodegradable kitchen waste. *Journal of Renewable and Sustainable Energy*. <https://doi.org/10.1063/1.4918281>
- Deng, L. Z., Mujumdar, A. S., Zhang, Q., Yang, X. H., Wang, J., Zheng, Z. A., Gao, Z. J., & Xiao, H. W. (2019). Chemical and physical pretreatments of fruits and vegetables: Effects on drying characteristics and quality attributes—a comprehensive review. In *Critical Reviews in Food Science and Nutrition*. <https://doi.org/10.1080/10408398.2017.1409192>
- Ding, Z., Ge, Y., Sar, T., Kumar, V., Harirchi, S., Binod, P., Sirohi, R., Sindhu, R., Wu, P., Lin, F., Zhang, Z., Taherzadeh, M. J., & Awasthi, M. K. (2023). Valorization of tropical fruits waste for production of commercial biorefinery products – A review. In *Bioresource Technology*. <https://doi.org/10.1016/j.biortech.2023.128793>
- Drewry, J. L., Choi, C. Y., Powell, J. M., & Luck, B. D. (2018). Computational model of methane and ammonia emissions from dairy barns: Development and validation. *Computers and Electronics in Agriculture*. <https://doi.org/10.1016/j.compag.2017.07.012>
- Duan, J. L., Han, Y., Feng, L. J., Ma, J. Y., Sun, X. D., Liu, X. Y., Geng, F. S., Jiang, J. L., Liu, M. Y., Sun, Y. C., Peu, P., Ni, B. J., & Yuan, X. Z. (2023). Single bubble probe atomic force microscope and impinging-jet technique unravel the interfacial interactions controlled by long chain fatty acid in anaerobic digestion. *Water Research*. <https://doi.org/10.1016/j.watres.2023.119657>
- Emmanuel, J. K., Juma, M. J., & Mlozi, S. H. (2024). Biogas generation from food waste through anaerobic digestion technology with emphasis on enhancing circular economy in Sub-Saharan Africa – A review. *Energy Reports*, 12, 3207–3217. <https://doi.org/10.1016/j.egy.2024.09.008>
- Gao, X., Li, Z., Zhang, K., Kong, D., Gao, W., Liang, J., Liu, F., & Du, L. (2023). Layer Inoculation as a New Technology to Resist Volatile Fatty Acid Inhibition during Solid-State Anaerobic Digestion: Methane Yield Performance and Microbial Responses. *Fermentation*. <https://doi.org/10.3390/fermentation9060535>

- Gebresilasie, G. G., Gebreslassie, M. G., & Gebresemati, M. (2025). Comparative potential of biogas production from the distillery, fruit and vegetable waste and their mixtures (digestion). *Heliyon*, *11*(2). <https://doi.org/10.1016/j.heliyon.2025.e42068>
- Gomez, K. A., & Gomez, A. A. (2007). Prosedur Statistik Untuk Penelitian Pertanian. Penerjemah E. Sjamsuddin. *Aktual*, *2*(1), 1–19.
- Gunaseelan, V. N. (2004). Biochemical methane potential of fruits and vegetable solid waste feedstocks. *Biomass and Bioenergy*. <https://doi.org/10.1016/j.biombioe.2003.08.006>
- Imeni, S. M., Puy, N., Ovejero, J., Busquets, A. M., Bartroli, J., Pelaz, L., Ponsá, S., & Colón, J. (2020). Techno-Economic Assessment of Anaerobic Co-digestion of Cattle Manure and Wheat Straw (Raw and Pre-treated) at Small to Medium Dairy Cattle Farms. *Waste and Biomass Valorization*. <https://doi.org/10.1007/s12649-019-00728-4>
- Induchoodan, T. G., Haq, I., & Kalamdhad, A. S. (2022). Factors Affecting Anaerobic Digestion for Biogas Production: A Review. *Advanced Organic Waste Management: Sustainable Practices and Approaches*, 223–233. <https://doi.org/10.1016/B978-0-323-85792-5.00020-4>
- Jeihanipour, A., Niklasson, C., & Taherzadeh, M. J. (2011). Enhancement of solubilization rate of cellulose in anaerobic digestion and its drawbacks. *Process Biochemistry*. <https://doi.org/10.1016/j.procbio.2011.04.003>
- Jeong, T. Y., Lee, J. H., Chung, H. K., Cha, H. J., & Choi, S. S. (2009). Methane production using peel-type fruit wastes and sewage sludge in batch anaerobic digestion process. *Journal of the Korean Industrial and Engineering Chemistry*, *20*(5), 542–546.
- Jong-Hun, P., Yoon, J., Kumar, G., Jin, Y., & Kim, S. 2018. Effects of acclimation and pH on ammonia inhibition for mesophilic methanogenic microflora. *Waste Management*, *80*. <https://doi.org/10.1016/j.wasman.2018.09.016>
- Kacaribu, A. A., & Darwin. 2024. Sustainable Bioproduct Production via Anaerobic Bioconversion by Landfill Soil Inoculum in Various Carbohydrate Wastes. *Acta Technologica Agriculturae*, *27*
- Kim, I. S., Hwang, M. H., Jang, N. J., Hyun, S. H., & Lee, S. T. (2004). Effect of low pH on the activity of hydrogen utilizing methanogen in bio-hydrogen process. *International Journal of Hydrogen Energy*. <https://doi.org/10.1016/j.ijhydene.2003.08.017>
- Kurniawan, T., Lukitawesa, Hanifah, I., Wikandari, R., Millati, R., Taherzadeh, M. J., & Niklasson, C. (2018). Semi-continuous reverse membrane bioreactor in two-stage anaerobic digestion of citruswaste. *Materials*. <https://doi.org/10.3390/ma11081341>
- Labatut, R. A., Angenent, L. T., & Scott, N. R. (2011). Biochemical methane potential and biodegradability of complex organic substrates. *Bioresource Technology*. <https://doi.org/10.1016/j.biortech.2010.10.035>
- Lama, M. (2013). The effect of pH on the toxicity of substances present in pulp and paper mill effluents: A literature review. *NCASI Technical Bulletin*.
- Larrosa, A. P. Q., & Otero, D. M. (2021). Flour made from fruit by-products:

- Characteristics, processing conditions, and applications. In *Journal of Food Processing and Preservation*. <https://doi.org/10.1111/jfpp.15398>
- Li, J. Z., Zhang, Y. P., Liu, C., & Tang, Z. Y. (2014). Toxicity of pH, Ammonia and volatile fatty acids on hydrogenotrophic methanogen-enriched sludge. *Advanced Materials Research*. <https://doi.org/10.4028/www.scientific.net/AMR.955-959.527>
- Li, M., Zhang, Q., Chen, C., Wang, S., & Min, D. (2019). Lignin Interaction with Cellulase during Enzymatic Hydrolysis. In *Paper and Biomaterials*. <https://doi.org/10.26599/PBM.2019.9260026>
- Li, Y., Gao, M. T., Hua, D. L., Zhang, J., Mu, H., Xu, H. P., & Zhang, X. D. (2015). Recycling of biogas residue derived from the anaerobic digestion of lipid-extracted algae. *Advances in Energy Science and Equipment Engineering - Proceedings of International Conference on Energy Equipment Science and Engineering, ICEESE 2015, 1*, 263–268. <https://doi.org/10.1201/b19126-55>
- Liu, J., Zhou, M., Zhou, L., Dang, R., Xiao, L., Tan, Y., Li, M., Yu, J., Zhang, P., Hernández, M., & Lichtfouse, E. (2025). Methane production related to microbiota in dairy cattle feces. *Environmental Research*, 267(138). <https://doi.org/10.1016/j.envres.2024.120642>
- Lovanh, N., Loughrin, J., Ruiz-Aguilar, G., & Sistani, K. (2023). Methane Production from a Rendering Waste Covered Anaerobic Digester: Greenhouse Gas Reduction and Energy Production. *Energies*. <https://doi.org/10.3390/en16237844>
- Lu, Y., Zhang, Q., Wang, X., Zhong, H., & Zhu, J. (2020). Effects of initial microbial community structure on the performance of solid-state anaerobic digestion of corn stover. *Journal of Cleaner Production*. <https://doi.org/10.1016/j.jclepro.2020.121007>
- Lukitawesa, Patinvoh, R. J., Millati, R., Sárvári-Horváth, I., & Taherzadeh, M. J. (2020). Factors Influencing Volatile Fatty Acids Production from Food Wastes Via Anaerobic Digestion. *Bioengineered*, 11(1), 39–52. <https://doi.org/10.1080/21655979.2019.1703544>
- Marendra, F., Prasetya, A., Cahyono, R. B., & Ariyanto, T. (2019). A Sustainability assessment of biogas plant based on fruit waste in Indonesia: Case study of Biogas Plant Gamping, Yogyakarta. *IOP Conference Series: Materials Science and Engineering*. <https://doi.org/10.1088/1757-899X/543/1/012059>
- Meng, X., Zhang, Y., Sui, Q., Wang, Z., Yu, D., Wang, Y., & Wei, Y. (2018). Effects of ammonia concentration on anaerobic digestion of swine manure and community structure of methanogens. *Chinese Journal of Environmental Engineering*. <https://doi.org/10.12030/j.cjee.201802064>
- Millati, R., Lukitawesa, Permanasari, E. D., Sari, K. W., Cahyanto, M. N., Niklasson, C., & Taherzadeh, M. J. (2018). Anaerobic digestion of citrus waste using two-stage membrane bioreactor. *IOP Conference Series: Materials Science and Engineering*. <https://doi.org/10.1088/1757-899X/316/1/012063>
- Mirmohamadsadeghi, S., Karimi, K., Azarbajani, R., Parsa Yeganeh, L., Angelidaki, I., Nizami, A. S., Bhat, R., Dashora, K., Vijay, V. K., Aghbashlo, M., Gupta, V. K., & Tabatabaei, M. (2021). Pretreatment of lignocelluloses for enhanced biogas

- production: A review on influencing mechanisms and the importance of microbial diversity. *Renewable and Sustainable Energy Reviews*. <https://doi.org/10.1016/j.rser.2020.110173>
- Møller, H. B., Sommer, S. G., & Ahring, B. K. (2004). Methane Productivity of Manure, Straw and Solid Fractions of Manure. *Biomass and Bioenergy*, 26(5), 485–495. <https://doi.org/10.1016/j.biombioe.2003.08.008>
- Mu, L., Wang, Y., Xu, F., Li, J., Tao, J., Sun, Y., Song, Y., Duan, Z., Li, S., & Chen, G. (2023). Emerging Strategies for Enhancing Propionate Conversion in Anaerobic Digestion: A Review. In *Molecules*. <https://doi.org/10.3390/molecules28093883>
- Muenmee, S., & Prasertboonyai, K. (2021). Potential Biogas Production Generated By Mono and Co-digestion of Food Waste and Fruit Waste (Durian Shell, Dragon Fruit and Pineapple Peel) in Different Mixture Ratio Under Anaerobic Condition. *Environmental Research, Engineering and Management*, 77(1), 25–35. <https://doi.org/10.5755/j01.erem.77.1.25234>
- Musser, S. R., Suhartini, S., & Melville, L. (2025). Methane from mango industrial waste: Influence of pH and co-anaerobic digestion. *Bioresource Technology Reports*, 29(February), 102056. <https://doi.org/10.1016/j.biteb.2025.102056>
- Nathoa, C., Sirisukpoca, U., & Pisutpaisal, N. (2014). Production of hydrogen and methane from banana peel by two phase anaerobic fermentation. *Energy Procedia*. <https://doi.org/10.1016/j.egypro.2014.06.086>
- Neshat, S. A., Mohammadi, M., Najafpour, G. D., & Lahijani, P. (2017). Anaerobic co-digestion of animal manures and lignocellulosic residues as a potent approach for sustainable biogas production. In *Renewable and Sustainable Energy Reviews* (Vol. 79, pp. 308–322). <https://doi.org/10.1016/j.rser.2017.05.137>
- Ngabala, F. J., & Emmanuel, J. K. (2024). Potential substrates for biogas production through anaerobic digestion-an alternative energy source. *Heliyon*, 10(23). <https://doi.org/10.1016/j.heliyon.2024.e40632>
- Pinos-Rodríguez, J. M., García-López, J. C., Peña-Avelino, L. Y., Rendón-Huerta, J. A., González-González, C., & Tristán-Patiño, F. (2012). Environmental regulations and impact of manure generated by livestock operations in some american countries. *Agrociencia*.
- Purwasih, R., Saindah, M., Triyuwanti, H., Yusuf, F. S., Purnomoadi, A., Purbowati, E., & Sutaryo, S. (2025). Optimizing Methane Production from Anaerobic Digestion of Dairy Cow Manure : The Potential Use of Carica (Carica pubescens) Seeds as a Co-Substrate. *Tropical Animal Science Journal*, 48(1), 37–44. <https://doi.org/https://doi.org/10.5398/tasj.2025.48.1.37>
- Purwasih, R., Sutaryo, S., Purbowati, E., & Purnomoadi, A. (2024). Evaluation of germination as pretreatment method to increase methane production: A case study in papaya seed. *Case Studies in Chemical and Environmental Engineering*, 10, 1–8. <https://doi.org/10.1016/j.cscee.2024.100788>
- Raposo, F., De La Rubia, M. A., Fernández-Cegri, V., & Borja, R. (2012). Anaerobic digestion of solid organic substrates in batch mode: An overview relating to methane yields and experimental procedures. In *Renewable and Sustainable Energy Reviews*.

<https://doi.org/10.1016/j.rser.2011.09.008>

- Santos, D., Lopes da Silva, J. A., & Pintado, M. (2022). Fruit and vegetable by-products' flours as ingredients: A review on production process, health benefits and technological functionalities. In *LWT*. <https://doi.org/10.1016/j.lwt.2021.112707>
- Sawyerr, N., Trois, C., & Workneh, T. (2019). Identification and characterization of potential feedstock for biogas production in South Africa. *Journal of Ecological Engineering*. <https://doi.org/10.12911/22998993/108652>
- Sibiya, N. T., Muzenda, E., & Mbohwa, C. (2017). Evaluation of potential substrates for biogas production via anaerobic digestion: A review. *Lecture Notes in Engineering and Computer Science*.
- Sierra, R., Smith, A., Granda, C., & Holtzapple, M. T. (2008). Producing fuels and chemicals from lignocellulosic biomass. *Chemical Engineering Progress*.
- Singh, H., Padhi, T., Kashyap, A., & Taneja, S. (2023). Recent advances in biogas production using various bio-waste's and its potential application: An overview. *Materials Today: Proceedings*. <https://doi.org/10.1016/j.matpr.2023.04.484>
- Siswati, L., & M Rizal. (2017). Peningkatan Pendapatan Petani Pertanian Terpadu Ternak Sapi Perah Dan Kelapa Sawit Di Kabupaten Pelalawan Provinsi Riau. *Jurnal Ilmu-Ilmu Peternakan*, 20(2), 51–58.
- Soldano, M., Pietri, A., Bertuzzi, T., Fabbri, C., Piccinini, S., Gallucci, F., & Aureli, G. (2021). Anaerobic Digestion of Mycotoxin-Contaminated Wheat: Effects on Methane Yield and Contamination Level. *Bioenergy Research*. <https://doi.org/10.1007/s12155-020-10161-4>
- Srisowmeya, G., Chakravarthy, M., & Nandhini Devi, G. (2020). Critical considerations in two-stage anaerobic digestion of food waste – A review. In *Renewable and Sustainable Energy Reviews*. <https://doi.org/10.1016/j.rser.2019.109587>
- Supelco. (2020). *Spectroquant® NOVA 60A - Operating Manual*.
- Sutaryo, Nugrahaini Sempana, A., Rifo Martio, M., Sulistyaningrum, D., Sofyan Ali, M., Ihsa Damarjati, R., Purbowati, E., Adiwiranti, R., & Purnomoadi, A. (2022). Methane Production of Pistia stratiotes as a Single Substrate and as a Co-substrate with Dairy Cow Manure. *Fermentation*, 8(12), 1–9. <https://doi.org/https://doi.org/10.3390/fermentation8120736>
- Sutaryo, S., Sempana, A. N., S. Lestari, C. M., & Ward, A. J. (2020). Performance Comparison of Single and Two-Phase Biogas Digesters Treating Dairy Cattle Manure at Tropical Ambient Temperature. *Tropical Animal Science Journal*, 43(4), 354–359. <https://doi.org/10.5398/tasj.2020.43.4.354>
- Sutaryo, S., Ward, A. J., & Møller, H. B. (2012). Thermophilic Anaerobic Co-digestion of Separated Solids from Acidified Dairy Cow Manure. *Bioresource Technology*, 114, 195–200. <https://doi.org/10.1016/j.biortech.2012.03.041>
- Sutaryo, Sempana, A. N., Prayoga, I., Chaniaji, F. G., Dwitama, S. D., Sugandi, N. F., Purnomoadi, A., & Ward, A. J. (2022). Increased Methane Yield from Dairy Cow Manure by Co-substrate with *Salvinia molesta*. *Asia - Pacific Journal of Science and Technology*, 28(03), 1–8.

- Syaichurrozi, I. (2022). *Teknologi Biogas*. Penerbit Adab.
- Wagner, A. O., Markt, R., Puempel, T., Illmer, P., Insam, H., & Ebner, C. (2017). Sample preparation, preservation, and storage for volatile fatty acid quantification in biogas plants. *Engineering in Life Sciences*. <https://doi.org/10.1002/elsc.201600095>
- Wang, J., Tang, X., Yang, H., Zhao, Q., Wang, H., Deng, L., & Wang, W. (2024). Fixing collapsed dry anaerobic digestion system of kitchen waste caused by severe VFAs accumulation. *Renewable Energy*, 237. <https://doi.org/10.1016/j.renene.2024.121589>
- Wang, X., Lu, X., Li, F., & Yang, G. (2014). Effects of temperature and Carbon-Nitrogen (C/N) ratio on the performance of anaerobic co-digestion of dairy manure, chicken manure and rice straw: Focusing on ammonia inhibition. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0097265>
- Wang, Y., Zhang, Y., Wang, J., & Meng, L. (2009). Effects of volatile fatty acid concentrations on methane yield and methanogenic bacteria. *Biomass and Bioenergy*. <https://doi.org/10.1016/j.biombioe.2009.01.007>
- Worwag, M., & Kwarciak-Kozłowska, A. (2019). Volatile fatty acid (VFA) yield from sludge anaerobic fermentation through a biotechnological approach. In *Industrial and Municipal Sludge: Emerging Concerns and Scope for Resource Recovery*. <https://doi.org/10.1016/B978-0-12-815907-1.00029-5>
- Wu, M., Zhang, R., Zhou, J., Xie, X., Yong, X., Yan, Z., Ge, M., & Zheng, T. (2014). Effect of temperature on methanogens metabolic pathway and structures of predominant bacteria. In *Huagong Xuebao/CIESC Journal*. <https://doi.org/10.3969/j.issn.0438-1157.2014.05.007>
- Yang, Y., Zhang, M., Zhao, J., & Wang, D. (2023). Effects of particle size on biomass pretreatment and hydrolysis performances in bioethanol conversion. *Biomass Conversion and Biorefinery*. <https://doi.org/10.1007/s13399-021-02169-3>
- Yao, Y., Chen, S., & Kafle, G. K. (2017). Importance of “weak-base” poplar wastes to process performance and methane yield in solid-state anaerobic digestion. *Journal of Environmental Management*. <https://doi.org/10.1016/j.jenvman.2017.02.025>
- Yentekakis, I. V., & Goula, G. (2017). Biogas management: Advanced utilization for production of renewable energy and added-value chemicals. In *Frontiers in Environmental Science*. <https://doi.org/10.3389/fenvs.2017.00007>
- Zamri, M. F. M. A., Akhilar, A., Mohd Roslan, M. E., Mohd Marzuki, M. H., Saad, J. M., & Shamsuddin, A. H. (2020). Valorisation of Organic Fraction Municipal Solid Waste Via Anaerobic Co-digestion of Malaysia Tropical Fruit for Biogas Production. *IOP Conference Series: Earth and Environmental Science*, 476(1). <https://doi.org/10.1088/1755-1315/476/1/012077>
- Zhai, N., Zhang, T., Yin, D., Yang, G., Wang, X., Ren, G., & Feng, Y. (2015). Effect of Initial pH on Anaerobic Co-digestion of Kitchen Waste and Cow Manure. *Waste Management*, 38(1), 126. <https://doi.org/10.1016/j.wasman.2014.12.027>
- Zhao, Q., Arhin, S. G., Yang, Z., Liu, H., Li, Z., Anwar, N., Papadakis, V. G., Liu, G., & Wang, W. (2021). pH regulation of the first phase could enhance the energy recovery from two-phase anaerobic digestion of food waste. *Water Environment Research*.

<https://doi.org/10.1002/wer.1527>

Zygmunt, B., & Banel, A. (2009). Formation, occurrence and determination of volatile fatty acids in environmental and related samples. *Proceedings of the 3rd WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education, EPESE '09, Renewable Energy Sources, RES '09, Waste Management, WWAI '09*.



SEKOLAH PASCASARJANA