DAFTAR PUSTAKA

Adiman, T. M. F., Feriyanto, A., . S., & Edahwati, L. (2020). Mineral Struvite Dari Batuan Dolomit Dengan Reaktor Kolom Sekat. *Jurnal Teknik Kimia*, *14*(2), 85–91. https://doi.org/10.33005/jurnal_tekkim.v14i2.2034

Ali, M., Chai, L. Y., Tang, C. J., Zheng, P., Min, X. B., Yang, Z. H., Xiong, L., & Song, Y. X. (2013). The increasing interest of Anammox research in China: Bacteria, process development, and application. *BioMed Research International*, *2013*. https://doi.org/10.1155/2013/134914

Ali, M., & Okabe, S. (2015). Anammox-based technologies for nitrogen removal: Advances in process start-up and remaining issues. *Chemosphere*, *141*, 144–153. https://doi.org/10.1016/J.Chemosphere.2015.06.094

Ali, M., Oshiki, M., Rathnayake, L., Ishii, S., Satoh, H., & Okabe, S. (2015). Rapid and successful start-up of anammox process by immobilizing the minimal quantity of biomass in PVA-SA gel beads. *Water Research*, *79*. https://doi.org/10.1016/j.watres.2015.04.024

Bassem, S. M. (2020). Water pollution and aquatic biodiversity. *Biodiversity International Journal Review*, *4*(1).

Bhuiyan, M. I. H., Mavinic, D. S., & Beckie, R. D. (2008). Nucleation and growth kinetics of struvite in a fluidized bed reactor. *Journal of Crystal Growth*, *310*(6), 1187–1194. https://doi.org/10.1016/j.jcrysgro.2007.12.054

Bolton, M. D., Van Esse, H. P., Vossen, J. H., De Jonge, R., Stergiopoulos, I., Stulemeijer, I. J. E., Van Den Berg, G. C. M., Borrás-Hidalgo, O., Dekker, H. L., De Koster, C. G., De Wit, P. J. G. M., Joosten, M. H. A. J., & Thomma, B. P. H. J. (2008). The novel Cladosporium fulvum lysin motif effector Ecp6 is a virulence factor with orthologues in other fungal species. *Molecular Microbiology*, *69*(1), 119–136. https://doi.org/10.1111/j.1365-2958.2008.06270.x

Broda, E. (1977). Two kinds of lithotrophs missing in nature. *Zeitschrift Für Allgemeine Mikrobiologie*, *17*(6). https://doi.org/10.1002/jobm.19770170611

Bunse, P., Orschler, L., Agrawal, S., & Lackner, S. (2020). Membrane aerated biofilm reactors for mainstream partial nitritation/anammox: Experiences using real municipal wastewater. *Water Research X*, *9*, 100066. https://doi.org/10.1016/j.wroa.2020.100066

Çelen, I., & Türker, M. (2001). Recovery of ammonia as struvite from anaerobic digester effluents. *Environmental Technology (United Kingdom)*, *22*(11). https://doi.org/10.1080/09593332208618192

Chamchoi, N., Nitisoravut, S., & Schmidt, J. E. (2008). Inactivation of Anammox communities under concurrent operation of anaerobic ammonium oxidation (Anammox) and denitrification. *Bioresource Technology*, *99*(9), 3331–3336. https://doi.org/https://doi.org/10.1016/j.biortech.2007.08.029

Chatterjee, P., Ghangrekar, M. M., & Rao, S. (2016). Development of anammox

process for removal of nitrogen from wastewater in a novel self-sustainable biofilm reactor. *Bioresource Technology*, *218*. https://doi.org/10.1016/j.biortech.2016.07.002

Chen, J., Zheng, P., Yu, Y., Tang, C., & Mahmood, Q. (2010). Promoting sludge quantity and activity results in high loading rates in Anammox UBF. *Bioresource Technology*, *101*(8), 2700–2705. https://doi.org/10.1016/j.biortech.2009.11.085

Chen, N., Chen, Z., Wu, Y., & Hu, A. (2014). Understanding gaseous nitrogen removal through direct measurement of dissolved N2 and N2O in a subtropical river-reservoir system. *Ecological Engineering*, *70*. https://doi.org/10.1016/j.ecoleng.2014.04.017

Cheremisinoff, P. N. (2019). Handbook of Water and Wastewater Treatment Technology. In *Handbook of Water and Wastewater Treatment Technology*. https://doi.org/10.1201/9780203752494

Dapena-Mora, A., Campos, J. L., Mosquera-Corral, A., Jetten, M. S. M., & Méndez, R. (2004). Stability of the Anammox process in a gas-lift reactor and a SBR. *Journal of Biotechnology*, *110*(2), 159–170. https://doi.org/https://doi.org/10.1016/j.jbiotec.2004.02.005

Dapena-Mora, A., Fernández, I., Campos, J. L., Mosquera-Corral, A., Méndez, R., & Jetten, M. S. M. (2007). Evaluation of activity and inhibition effects on Anammox process by batch tests based on the nitrogen gas production. *Enzyme and Microbial Technology*, *40*(4), 859–865. https://doi.org/10.1016/j.enzmictec.2006.06.018

Davidson, E. A., Savage, K. E., Bettez, N. D., Marino, R., & Howarth, R. W. (2010). Nitrogen in runoff from residential roads in a coastal area. *Water, Air, and Soil Pollution*, *210*(1–4). https://doi.org/10.1007/s11270-009-0218-2

Dodds, W. K., Bouska, W. W., Eitzmann, J. L., Pilger, T. J., Pitts, K. L., Riley, A. J., Schloesser, J. T., & Thornbrugh, D. J. (2009). Eutrophication of U. S. freshwaters: Analysis of potential economic damages. *Environmental Science and Technology*, *43*(1). https://doi.org/10.1021/es801217q

Dongen, L. G. J. M., Jetten, M. S. M. (Michael S. M., & Loosdrecht, M. C. M. van (Marinus C. M. van). (2001). *The combined Sharon/Anammox process : a sustainable method for N-removal from sludge water*. 64.

Edahwati, L., Sutiyono, & Anggriawan, R. R. (2021). Pembentukan Pupuk Struvite dari Limbah Cair Industri Tempe dengan Proses Aerasi. *Jurnal Teknologi Lingkungan*, *22*(2), 215–221. https://doi.org/10.29122/jtl.v22i2.4721

Egli, K., Fanger, U., Alvarez, P. J. J., Siegrist, H., van der Meer, J. R., & Zehnder, A. J. B. (2001). Enrichment and characterization of an anammox bacterium from a rotating biological contactor treating ammonium-rich leachate. *Archives of Microbiology*, *175*(3), 198–207. https://doi.org/10.1007/s002030100255

Fernández, I., Dosta, J., Fajardo, C., Campos, J. L., Mosquera-Corral, A., &

Méndez, R. (2012). Short- and long-term effects of ammonium and nitrite on the Anammox process. *Journal of Environmental Management*, *95*(SUPPL.). https://doi.org/10.1016/j.jenvman.2010.10.044

Furukawa, K., Lieu, P. K., Tokitoh, H., & Fujii, T. (2006). Development of single-stage nitrogen removal using anammox and partial nitritation (SNAP) and its treatment performances. *Water Science and Technology*, *53*(6), 83–90. https://doi.org/10.2166/wst.2006.175

Graaf, A. A. Van De, Bruijn, P. De, Robertson, L. A., Jetten, M. S. M., & Kuenen, J. G. (1996). Autotrophic growth of anaerobic in a fluidized bed reactor. *Microbiology*, *142*, 2187–2196.

Hassan, P. (2013). *SIMULTANEOUS MANAGEMENT OF NITROGEN AND PHOSPHORUS IN DEWATERED SLUDGE LIQUOR BY COMBINING ANAMMOX PROCESS WITH STRUVITE CRYSTALLIZATION by Parssa Hassan B . Sc . Engg . (Civil), Bangladesh University of Engineering and Technology , Dhaka , Bangladesh ,. September*.

Hatamoto, M., Miyauchi, T., Kindaichi, T., Ozaki, N., & Ohashi, A. (2011). Dissolved methane oxidation and competition for oxygen in down-flow hanging sponge reactor for post-treatment of anaerobic wastewater treatment. *Bioresource Technology*, *102*(22), 10299–10304. https://doi.org/https://doi.org/10.1016/j.biortech.2011.08.099

Hauck, M., Maalcke-Luesken, F. A., Jetten, M. S. M., & Huijbregts, M. A. J. (2016). Removing nitrogen from wastewater with side stream anammox: What are the trade-offs between environmental impacts? *Resources, Conservation and Recycling*, *107*. https://doi.org/10.1016/j.resconrec.2015.11.019

Hussain, A., Kumar, P., & Mehrotra, I. (2015). Nitrogen and phosphorus requirement in anaerobic process: A review. *Environmental Engineering and Management Journal*, *14*(4), 769–780. https://doi.org/10.30638/eemj.2015.086

J, K., & JL, W. (2006). Influence of chemical oxygen demand concentrations on anaerobic ammonium oxidation by granular sludge from EGSB reactor. *Biomedical and Environmental Sciences : BES*, *19*(3), 192–196.

Jetten, M. S. M., Strous, M., & Kuenen, J. G. (1999). Key physiology of anaerobic ammonium oxidation. *Applied and Environmental Microbiology*, *65*(7), 3248–3250. https://doi.org/10.1128/AEM.65.7.3248-3250.1999

Jetten, M. S. M., Wagner, M., Fuerst, J., Van Loosdrecht, M., Kuenen, G., & Strous, M. (2001). Microbiology and application of the anaerobic ammonium oxidation ('anammox') process. In *Current Opinion in Biotechnology* (Vol. 12, Issue 3). https://doi.org/10.1016/S0958-1669(00)00211-1

Jetten, M., Schmid, M., Van De Pas-Schoonen, K., Damsté, J. S., & Strous, M. (2005). Anammox organisms: Enrichment, cultivation, and environmental analysis. In *Methods in Enzymology* (Vol. 397). https://doi.org/10.1016/S0076-6879(05)97003-1

Jin, R. C., Yang, G. F., Ma, C., Yu, J. J., Zhang, Q. Q., & Xing, B. S. (2012). Influence of effluent recirculation on the performance of Anammox process. *Chemical Engineering Journal*, *200–202*. https://doi.org/10.1016/j.cej.2012.06.046

Jin, R.-C. C., Yang, G.-F. F., Yu, J.-J. J., & Zheng, P. (2012). The inhibition of the Anammox process: A review. *Chemical Engineering Journal*, *197*(November 2017), 67–79. https://doi.org/10.1016/j.cej.2012.05.014

Kalam, S. (2015). *A pilot scale study of combining struvite precipitation with UniBAR-anammox process as a sustainable unified solution for managing nutrients in centrate (T)*. *May*, 1–178. https://open.library.ubc.ca/cIRcle/collections/24/items/1.0167707

Kartal, B., Rattray, J., van Niftrik, L. A., van de Vossenberg, J., Schmid, M. C., Webb, R. I., Schouten, S., Fuerst, J. A., Damsté, J. S., Jetten, M. S. M., & Strous, M. (2007). Candidatus "Anammoxoglobus propionicus" a new propionate oxidizing species of anaerobic ammonium oxidizing bacteria. *Systematic and Applied Microbiology*, *30*(1), 39–49. https://doi.org/10.1016/j.syapm.2006.03.004

Kartal, B., Van Niftrik, L., Rattray, J., Van De Vossenberg, J. L. C. M., Schmid, M. C., Sinninghe Damsté, J., Jetten, M. S. M., & Strous, M. (2008). Candidatus "Brocadia fulgida": An autofluorescent anaerobic ammonium oxidizing bacterium. *FEMS Microbiology Ecology*, *63*(1), 46–55. https://doi.org/10.1111/j.1574-6941.2007.00408.x

Kim, J., Lingaraju, B. P., Rheaume, R., Lee, J. Y., & Siddiqui, K. F. (2010). Removal of ammonia from wastewater effluent by chlorella vulgaris. *Tsinghua Science and Technology*, *15*(4). https://doi.org/10.1016/S1007-0214(10)70078-X

Kosari, S. F., Rezania, B., Lo, K. V., & Mavinic, D. S. (2014). Operational strategy for nitrogen removal from centrate in a two-stage partial nitrification-Anammox process. *Environmental Technology (United Kingdom)*, *35*(9), 1110–1120. https://doi.org/10.1080/09593330.2013.861872

Kubar, A. A., Huang, Q., Sajjad, M., Chen, Y., Lian, F., Wang, J., & Kubar, K. A. (2021). The recovery of phosphate and ammonium from biogas slurry as value-added fertilizer by biochar and struvite co-precipitation. In *Sustainability (Switzerland)* (Vol. 13, Issue 7). https://doi.org/10.3390/su13073827

Kusuma, Y. A. (2019). Recovery Fosfat Dari Limbah Cair PT Petrokimia Gresik dengan Proses Kristalisasi Reaktor Fluidized Bed. *Tesis*, 1–139.

Le Corre, K. S., Valsami-Jones, E., Hobbs, P., & Parsons, S. A. (2009). Phosphorus recovery from wastewater by struvite crystallization: A review. *Critical Reviews in Environmental Science and Technology*, *39*(6), 433–477. https://doi.org/10.1080/10643380701640573

Li, H., Zhou, S., Ma, W., Huang, P., Huang, G., Qin, Y., Xu, B., & Ouyang, H.

(2014). Long-term performance and microbial ecology of a two-stage PN–ANAMMOX process treating mature landfill leachate. *Bioresource Technology*, *159*, 404–411. https://doi.org/https://doi.org/10.1016/j.biortech.2014.02.054

Liu, Y., Ngo, H. H., Guo, W., Peng, L., Wang, D., & Ni, B. (2019). The roles of free ammonia (FA) in biological wastewater treatment processes: A review. *Environment International*, *123*(October 2018), 10–19. https://doi.org/10.1016/j.envint.2018.11.039

Lotti, T., Kleerebezem, R., Hu, Z., Kartal, B., Jetten, M. S. M., & van Loosdrecht, M. C. M. (2014). Simultaneous partial nitritation and anammox at low temperature with granular sludge. *Water Research*, *66*(February), 111–121. https://doi.org/10.1016/j.watres.2014.07.047

Lu, H., Peng, M., Zhang, G., Li, B., & Li, Y. (2019). Brewery wastewater treatment and resource recovery through long term continuous-mode operation in pilot photosynthetic bacteria-membrane bioreactor. *Science of the Total Environment*, *646*. https://doi.org/10.1016/j.scitotenv.2018.07.268

Ma, B., Wang, S., Cao, S., Miao, Y., Jia, F., Du, R., & Peng, Y. (2016). Biological nitrogen removal from sewage via anammox: Recent advances. In *Bioresource Technology* (Vol. 200). https://doi.org/10.1016/j.biortech.2015.10.074

Ma, H., Xue, Y., Zhang, Y., Kobayashi, T., Kubota, K., & Li, Y. Y. (2020). Simultaneous nitrogen removal and phosphorus recovery using an anammox expanded reactor operated at 25 °C. *Water Research*, *172*. https://doi.org/10.1016/j.watres.2020.115510

Ma'mun, Hisyam, A.P. Bayuseno, S. Muryanto (2013). *Pembentukan Kerak Kalsium Karbonat ($CaCO_3$) di Dalam Pipa Beraliran Laminer Pada Laju Alir 30 ml/menit Hingga 50 ml/menit dan Penambahan Aditif Asam Malat*. Fakultas Teknik Universitas Wahid Hasyim Semarang. ISBN 978-602-99334-2-0.

Manjunath D.L., (1987), *Treatment of sugar industry wastes using upflow anaerobic sludge blanket (UASB) process*, PhD Thesis, University of Roorkee, Roorkee, India.

Mojiri A., Hamidi A.A., Zaman N.Q., Aziz S.Q., (2012), A review on anaerobic digestion, bio-reactor and nitrogen removal from wastewater and landfill leachate by bio-reactor, *Advances in Environmental Biology*, 6, 2143-2150.

Mulder, A., van de Graaf, A. A., Robertson, L. A., & Kuenen, J. G. (1995). Anaerobic ammonium oxidation discovered in a denitrifying fluidized bed reactor. *FEMS Microbiology Ecology*, *16*(3). https://doi.org/10.1016/0168-6496(94)00081-7

Nakajima, J., Sakka, M., Kimura, T., Furukawa, K., & Sakka, K. (2008). Enrichment of anammox bacteria from marine environment for the construction of a bioremediation reactor. *Applied Microbiology and Biotechnology*, *77*(5), 1159–1166. https://doi.org/10.1007/s00253-007-1247-7

Osborne, N. J. T., Webb, P. M., & Shaw, G. R. (2001). The toxins of lyngbya majuscula and their human and ecological health effects. *Environment International*, *27*(5). https://doi.org/10.1016/S0160-4120(01)00098-8

Oshiki, M., Ishii, S., Yoshida, K., Fujii, N., Ishiguro, M., Satoh, H., & Okabe, S. (2013). Nitrate-dependent ferrous iron oxidation by anaerobic ammonium oxidation (anammox) bacteria. *Applied and Environmental Microbiology*, *79*(13), 4087–4093. https://doi.org/10.1128/AEM.00743-13

Oshiki, M., Shimokawa, M., Fujii, N., Satoh, H., & Okabe, S. (2011). Physiological characteristics of the anaerobic ammonium-oxidizing bacterium 'Candidatus Brocadia sinica.' *Microbiology*, *157*(6), 1706–1713. https://doi.org/https://doi.org/10.1099/mic.0.048595-0

Padmono, D., Lingkungan, P. T., Pengkajian, B., & Teknologi, P. (2007). Distribusi Substrat Di Dalam Fixed Bed Reactor (Fbr). *J.Tek.Ling*, *8*(1), 29–33.

Putra, R. P., Zulkarnaini, & Komala, P. S. R. I. (2020). Start – Up Proses Anammox Menggunakan Lumpur Telaga Koto Baru sebagai Inokulum Start-Up Anammox Process Using Sludge from Koto Baru Lake as Inoculum. *Jurnal Teknologi Lingkungan*, *21*(1), 9.

Qian, G., Wang, J., Kan, J., Zhang, X., Xia, Z., Zhang, X., Miao, Y., & Sun, J. (2018). Diversity and distribution of anammox bacteria in water column and sediments of the Eastern Indian Ocean. *International Biodeterioration and Biodegradation*, *133*. https://doi.org/10.1016/j.ibiod.2018.05.015

Quan, Z. X., Rhee, S. K., Zuo, J. E., Yang, Y., Bae, J. W., Park, J. R., Lee, S. T., & Park, Y. H. (2008). Diversity of ammonium-oxidizing bacteria in a granular sludge anaerobic ammonium-oxidizing (anammox) reactor. *Environmental Microbiology*, *10*(11), 3130–3139. https://doi.org/10.1111/j.1462-2920.2008.01642.x

Rasyidah, A. A. (2023). *Jurnal Teknologi Lingkungan Pemanfaatan Limbah Sedotan Plastik sebagai Media Lekat dalam Proses Anammox Utilization of Waste Plastic Straws as Carrier in the Anammox Process*. *24*(1), 73–80.

Russell, D. L. (2006). Practical Wastewater Treatment. In *Practical Wastewater Treatment*. https://doi.org/10.1002/0470067926

Rustadi. (2009). Eutrofikasi nitrogen dan fosfor serta pengendaliannya dengan perikanan di Waduk Sermo. *Jurnal Manusia Dan Lingkungan*, *16*(3).

Saputra, D. J., Zulkarnaini, & Primasari, B. (2019). *Penyisihan Nitrogen Dengan Proses Anammox Pada Up-Flow Anaerobic Sludge Blanket (UASB) Reaktor Memanfaatkan Botol Minuman Kemasan Sebagai Media Lekat*. 118. http://scholar.unand.ac.id/id/eprint/45105

Satria, A. W., Rahmawati, M., & Prasetya, A. (2019). Pengolahan Nitrifikasi Limbah Amonia dan Denitrifikasi Limbah Fosfat dengan Biofilter Tercelup. *Jurnal Teknologi Lingkungan*, *20*(2), 243. https://doi.org/10.29122/jtl.v20i2.3479

Schmid, M., Twachtmann, U., Klein, M., Strous, M., Juretschko, S., Jetten, M., Metzger, J. W., Schleifer, K. H., & Wagner, M. (2000). Molecular evidence for genus level diversity of bacteria capable of catalyzing anaerobic ammonium oxidation. *Systematic and Applied Microbiology*, *23*(1). https://doi.org/10.1016/S0723-2020(00)80050-8

Sintawardani, N., Hamidah, U., Widyarani, Wulan, D. R., & Nilawati, D. (2022). *Recovery of Energy and Materials From Small-Scale Tofu Processing Industries in Indonesia*. https://doi.org/10.4018/978-1-7998-9664-7.ch013

Spellman, F. R. (2009). Appendix I: Answers to Chapter Problems. *Drug-like Properties: Concepts, Structure Design and Methods from ADME to Toxicity Optimization*.

Stafford D.A., Hawkes D.L., Houghton R., (1980), *Methane Production From Waste Organic Matter*, CRC Press, Boca Raton, Florida, U.S.A.

Strous, M., Heijnen, J. J., Kuenen, J. G., & Jetten, M. S. M. (1998). The sequencing batch reactor as a powerful tool for the study of slowly growing anaerobic ammonium-oxidizing microorganisms. *Applied Microbiology and Biotechnology*, *50*(5), 589–596. https://doi.org/10.1007/s002530051340

Strous, M., Van Gerven, E., Kuenen, J. G., & Jetten, M. (1997). Effects of aerobic and microaerobic conditions on anaerobic ammonium- oxidizing (anammox) sludge. *Applied and Environmental Microbiology*, *63*(6). https://doi.org/10.1128/aem.63.6.2446-2448.1997

Sudarman, R., Budiastuti, H., Djenar, N. S., Panggalo, E. S., & Nurhasyim, A. (2020). Penyisihan Kadar Amoniak dalam Limbah Cair Industri Pupuk Menggunakan Sequencing Batch Reactor. *FLUIDA*, *13*(2). https://doi.org/10.35313/fluida.v13i2.2264

Sudarno. (2012). Perkembangan Biofilm Nitrifikasi Di Fixed Bed Reactor Pada Salinitas Tinggi. *Jurnal Presipitasi*, *9*(1), 2–9.

Sutiyono, S., Edahwati, L., Perwitasari, D. S., Muryanto, S., Jamari, J., & Bayuseno, A. P. (2016). Synthesis and characterisation of struvite family crystals by an aqueous precipitation method. *MATEC Web of Conferences*, *58*. https://doi.org/10.1051/matecconf/20165801006

Tang, K., An, S., & Nemati, M. (2010). Evaluation of autotrophic and heterotrophic processes in biofilm reactors used for removal of sulphide, nitrate and COD. *Bioresource Technology*, *101*(21), 8109–8118. https://doi.org/https://doi.org/10.1016/j.biortech.2010.06.037

Terada, A., Zhou, S., & Hosomi, M. (2011). Presence and detection of anaerobic ammonium-oxidizing (anammox) bacteria and appraisal of anammox process for high-strength nitrogenous wastewater treatment: A review. In *Clean Technologies and Environmental Policy* (Vol. 13, Issue 6). https://doi.org/10.1007/s10098-011-0355-3

Tsushima, I., Ogasawara, Y., Kindaichi, T., Satoh, H., & Okabe, S. (2007). Development of high-rate anaerobic ammonium-oxidizing (anammox) biofilm

reactors. *Water Research*, *41*(8), 1623–1634. https://doi.org/10.1016/J.WATRES.2007.01.050

Van Der Star, W. R. L., Miclea, A. I., Van Dongen, U. G. J. M., Muyzer, G., Picioreanu, C., & Van Loosdrecht, M. C. M. (2008). The membrane bioreactor: A novel tool to grow anammox bacteria as free cells. *Biotechnology and Bioengineering*, *101*(2), 286–294. https://doi.org/10.1002/bit.21891

Wang, T., Shen, B., Zhang, S., Wang, Z., & Tian, L. (2016). Start-up performance of Anammox process in a fixed bed reactor (FBR) filled with honeycomb-like polypropylene carriers. *Water Science and Technology*, *73*(8), 1848–1854. https://doi.org/10.2166/wst.2016.017

Wang, X., Wang, T., Yuan, L., & Xing, F. (2021). One-step start-up and subsequent operation of CANON process in a fixed-bed reactor by inoculating mixture of partial nitrification and Anammox sludge. *Chemosphere*, *275*. https://doi.org/10.1016/j.chemosphere.2021.130075

Yang, J., Trela, J., Zubrowska-Sudol, M., & Plaza, E. (2015). Intermittent aeration in one-stage partial nitritation/anammox process. *Ecological Engineering*, *75*, 413–420. https://doi.org/10.1016/j.ecoleng.2014.11.016

Zhang, Z., & Liu, S. (2014). Hot topics and application trends of the anammox biotechnology: A review by bibliometric analysis. In *SpringerPlus* (Vol. 3, Issue 1). https://doi.org/10.1186/2193-1801-3-220

Zhou, Y., Ganda, L., Lim, M., Yuan, Z., Kjelleberg, S., & Ng, W. J. (2010). Free nitrous acid (FNA) inhibition on denitrifying poly-phosphate accumulating organisms (DPAOs). *Applied Microbiology and Biotechnology 2010 88:1*, *88*(1), 359–369. https://doi.org/10.1007/S00253-010-2780-3

Zulfa, M. (2020). *Penyisihan Nitrogen dengan Proses Anammox Pada Reaktor Up-Flow Anaerobic Sludge Blanket (UASB) Memanfaatkan Batu Apung Sebagai Media Lekat*. http://scholar.unand.ac.id/

Zulkarnaini. (2021). *Teknik Kultivasi dan identifikasi bakteri anammox*. LPPM: Universitas Andalas.

Zulkarnaini, Komala, P. S., & Almi, A. (2021). Anammox biofilm process using sugarcane bagasse as an organic carrier. *Indonesian Journal of Biotechnology*, *26*(1), 25–32. https://doi.org/10.22146/IJBIOTECH.58554

Zulkarnaini, Yujie, Q., Yamamoto-Ikemoto, R., & Matsuura, N. (2018). One-stage nitritation/anammox process using a biofilm reactor with two-inflow. *Journal of Water and Environment Technology*, *16*(2). https://doi.org/10.2965/jwet.17-050

Zulkarnaini, Z., Afrianita, R., & Putra, I. H. (2020). Aplikasi Proses Anammox Dalam Penyisihan Nitrogen Menggunakan Reaktor Up-Flow Anaerobic Sludge Blanket. *Jurnal Teknologi Lingkungan*, *21*(1), 31–39. https://doi.org/10.29122/jtl.v21i1.3725