

DAFTAR PUSTAKA

- Akita, K.Yoshida, F.,1973 .*Gas holdup and volumetric mass transfer coefficient in bubble columns, Industrial and Engineering Chemistry, Process Design and Development* 12 hal.76–80.
- Baskoro, A., 2015. *Rancang Bangun dan Pengujian Microbubble Generator untuk Keperluan Aerobic Waste Water Treatment*, Departemen Teknik Mesin dan Industri, Universitas Gadjah Mada, Yogyakarta.
- Baylar, A., dan Ozkan F., 2005. *Influence of venturi cone angles on jet aeration systems*. Proceedings of the Institution of Civil Engineers Water Management Issue WM1
- Baylar, A., dan Ozkan, F., 2006, *Applications of Venturi Principle to Water Aeration Systems*, Environmental Fluid Mechanics, vol. 6, 341-357.
- Boyd, C. E. 1990. *Water Quality in Ponds for Aquaculture*. Alabama : Birmingham Publishing.
- Brata, E.D. 2015. *Kajian Eksperimental Penentuan Kondisi Optimum Pengoperasian Microbubble Generator Untuk Kebutuhan Aerobic Waste Water Treatment*, Universitas Gadjah Mada, Yogyakarta.
- Brennen, Christopher E. 1995. *Cavitation and Bubble Dynamics* ,Oxford University Press
- Carr, G.M. dan Neary, J.P, 2006. *Water Quality for Ecosystem dan Human Health, United, Nation Enviromental Program Global Enviromental Monitoring Systems Water Program (UNEP-GEMS)*. Burlington, Ontario, L7R4A6 Canada (<http://gemswater.org>)
- Changjun, L., Bin, L., Shengwei, T., Haiguang, Z., 2010. *A Theoretical Model for The Size Prediction of Single Bubble Formed Under Liquid Cross Flow*, Chinese Journal of Chemical Engineering, 18(5), 770-776
- Copithorn, Rhodes R., Boltz, Joshua P., deBarbadillo, Chrstine., dkk., 2010, *Biofilm Reactors*. WefPress., USA.
- Doughlas, JF.John A, 2005. *Swaffield Fluid Mechanic 5th edition*.
- Féris, L. A., S. C. W. Gallina, dkk. 2000. *Optimizing dissolved air flotation design system*. Brazilian Journal of Chemical Engineering 17: 549-556.
- Gordiychuk, A., Svanera, M., Benini, S., Poesio, P., 2016. *Size Distribution and Sauter Mean Diameter of Microbubble for a Venturi Type Bubble Generator*, Experimental Thermal and Fluid Science, 70, 51-60.
- Honkanen, M., Saarenrinne, P., Stoor, T., Niinimki, J., 2005. *Recognition of Highly Overlapping Ellipse-Like Bubble Images*. Meas. Sci. Technol. 16, 1760–1770.

- Ishikawa, M., Irabu, K., Teruya, I., Nitta, M., 2009. *PIV Measurement of a Concentration Flow Using Micro-Bubble Tracer*, Proc. The 6th International Symposium on Measurement Techniques for Multiphase Flow.
- Iriawan, A. G. W., 2014, *The Study of Micro-bubble Generator on Aerobic Waste Water Treatment using Bio-ball Method, Based on The Bubbling Generating Condition and The Configuration of Micro-bubble Generator*, Departemen Teknik Mesin dan Industri, Universitas Gadjah Mada, Yogyakarta.
- Kawahara, A., Sadatomi, M., Matsuyama, F., and Matsuura, H., 2009, *Prediction of Microbubble Dissolution Characteristic in Water and Sea Water*, Experimental Thermal and Fluid Science, 33, 883-894
- Khirani, S, Guiraud, P., 2011, *Microbubble Generation Through Porous Membrane Under Aqueous or Organic Liquid Shear Flow*, Toulouse University.
- Kukizaki, M, Goto ,M., 2006. *Size Control of Nanobubbles generated From Shirasu-Porous-Glass (SPG) Membrane*, in *Journal of Membrane Science* 281 (1-2), 386-396.
- Lau, Y,M., 2013. *Development of an Image Measurement Technique for Size Distribution in Dense Bubbly Flows*, Chemical Engineering Science, vol. 94, 20-29.
- Lewis, M.E. 2006. *Dissolved Oxygen*, U.S. Geological Survey TWRI Book 9, Version 2.0
- Liu, C., Tanaka, H., Ma, J., Zhang, L., Zhang, J., Huang , X., 2012. *Effect of Microbubble and Its Generation Process on Mixed Liquor Properties of Activated Sludge Using Shirasu Porous Glass (SPG) Membrane Sytems*, Water Research, 46, 6051-6058.
- Mahmud. 2014. *Studi Eksperimental Desain Instalasi Microbubble Generator Dengan Optimasi Kadar Dissolved Oxygen dan Analisa Waktu Kerja Efektif Pompa Untuk Diaplikasikan Pada Pengolahan Air Limbah*, Universitas Gadjah Mada, Indonesia.
- Mena, P., Ferreira, A., Teixeira, J. A., & Rocha, F., 2011, *Effect of some solid properties on gas-liquid mass transfer in a bubble column*, Chemical Engineering and Processing: Process Intensification, 50(2), 181-188.
- Onhari, H., *Swirling Type Micro-bubble Generating System*, US Patent 7472893 B2.
- Oliveira, C. and J. Rubio, 2011. *Zeta potential of single and polymer -coated microbubbles using an adapted microelectrophoresis technique*. International Journal of Mineral Processing 98(1-2): 118-123.
- Parmar, R., Majumder, S.K., 2013. *Microbubble Generations and Aided Transport Process Intensification- A State -of - The Report*, Chemical Engineering and Processing, 64, 79-97.

- Rittman, B.E and Mc Carty P.L. 2001. *Environmental Biotechnology Principles and Application*, Boston : Mc Graw Hill.
- Rizal, Achmad 2014. *Pengolahan Citra*, (Online), (<http://achmadrizal.staff.telkomuniversity.ac.id/pengolahan-citra/>) diakses 8 Agustus 2017).
- Sadatom, M., Kawahara, A., Kano, K., dan Ohtomo, A., 2005. *Performance of New Micro-Bubble Generator With A Spherical Body in Flowing Water Tube*, Experimental Thermal and Fluid Science, 29, 615-623.
- Sadatom, M., Kawahara, A., Matsuura, H., Shikatani, S., 2012. *Microbubble Generation Rate and Bubble Dissolution Rate Into Water by A Simple Multi Fluid Mixer With Orifice and Porous Tube*, Experimental Thermal and Fluid Science, 41, 23- 30.
- Salmin, 2005, *Oksigen Terlarut (DO) dan Kebutuhan Oksigen Biologi (BOD) sebagai Salah Satu Indikator untuk Menentukan Kualitas Perairan*, Oseana, 30.3 21-26.
- Steinhart, M. 2004. *Physics and Chemistry of Interfaces*. By Hans-Jürgen Butt, Karlheinz Graf, and Michael Kappl. Angew. Chem. Int. Ed., 43
- Susane, H. 2015. *Studi Pemanfaatan Microbubble Generator untuk Pengolahan Limbah Aerobik*, Jurusan Teknik Kimia, Universitas Gadjah Mada, Yogyakarta.
- Sutoyo, T. dkk, 2009. *Teori Pengolahan Citra Digital*. Yogyakarta: Penerbit Andi.
- Takahashi, M., T. Kawamura, dkk. 2003. *Effect of shrinking microbubble on gas hydrate formation*. Journal of Physical Chemistry 107(10): 2171-2173.
- Takahashi, M.; Chiba, K. & Li, P. 2007. *Free-Radical Generation from Collapsing Microbubbles in the Absence of a Dynamic Stimulus*, Journal of Physical Chemistry 111: 1343-1347
- Terasaka, K., Nishino, T., Fujioko, S., dan Kobayashi, D., 2011. *Development of Microbubble Aerator for Waste Treatment Using Aerobic Activated Sludge*, Chemical Engineering science, 66, 3172-3179.
- Widayat, 2004. *Pengaruh Laju Alir dan Viskositas Terhadap Perpindahan Massa Gas-Cair Fluida Non Newtonian Dalam Reaktor Air Lift Rectangular*. Posiding Seminar Nasional Rekayasa Kimia dan Proses 2004 ISSN : 1411-4216 (diakses tanggal 20 Juli 2015)
- Yoon, Roe-Hoen, Adel, G.T., Luttrell, G.H., 1991. *Process and Apparatus For Separating Fine Particle by Micro-Bubble Flootation Together with a Process and Apparatus for Generation of Microbubble*, US Patent, US4981582.
- Zimmerman, W. B., V. Tesar, dkk. 2008. *Microbubble Generation*. Recent Patents on Engineering 2: 1-8.