

## DAFTAR PUSTAKA

- A., Servatius B., 2012, "*Absorpsi Gas CO<sub>2</sub> Melalui Kontraktor Membran Serat Berongga Menggunakan Larutan Penyerap Tunggal dan Campuran Senyawa Amine: Pengaruh Laju Alir CO<sub>2</sub>*", Skripsi Universitas Indonesia.
- Abatzoglou, Nicolas dan Steve Boivi, 2008, "*A Review of Biogas Purification Processes*", Willey InterScience.
- Afkhamipour, Morteza, dan Masoud Mofarahi, 2014, "*Sensitivity Analysis of the Rate Based CO<sub>2</sub> Absorber Model Using Amine Solution (MEA, MDEA, and AMP) in Packed Column*", International Journal of Greenhouse Gas Control.
- Al-Ghawas, Hani A., Daniel P. Hagewiesche, Gabriel Rulz – Ibanez, dan Oevllle C. Sandall, 1989, "*Physicochemical Properties Important for Carbon Dioxide Absorption in Aqueous Methyldiethanolamine*", Journal of Chemical Engineering, Vol. 34, Hal. 385 – 391.
- Altway, Ali, Kusnaryo, dan Radeya Purna Wijaya, 2008, "*Analisa Transfer Massa Disertai Reaksi Kimia pada Absorpsi CO<sub>2</sub> dengan Larutan Potasium Karbonat dalam Packed Column*", Jurnal Teknik Kimia Vol. 2, No. 2.
- BP Statistical Review of World Energy, 2015, "*BP Statistical Review of World Energy June 2015*", Bp p.l.c.
- Cekanova, Patricia, Natalia Jasminska, Tomas Brestovic, dan Eva Schvarzbacherova, 2011, "*Biogas Upgrading Processes For The Production of Natural Gas Substitute*", The Holistic Approach to Enviroment, Hal. 53 – 62.
- Camaco, Fernando, Sebastian Sanchez, Rafael Pacheco, M. Dolores La Rubia, dan Antonio Sanchez, 2008, "*Kinetics of the Reaction of Pure CO<sub>2</sub> with N-Methyldiethanolamine in Aqueous Solutions*", Wiley InterScience.
- Direktorat Pengolahan Hasil Pertanian, Ditjen PPHP, 2009, "*Profil Pengembangan Bio-Energi Perdesaan (Biogas)*", Departemen Pertanian.
- Elk, Nathalie J.M.C. Penders-van, Peter W.J. Derks, Sylvie Fradette, dan Geert F. Versteeg, 2011, "*Kinetics of Absorption of Carbon Dioxide in Aqueous MDEA solutions with Carbonic Anhydrase at 298 K*", International Journal of Greenhouse Gas Control 9, Hal. 385 – 392.
- ESDM, 2015, "*Sektor Pasokan Energi Produksi Minyak, Gas, dan Batu Bara, Indonesia 2050 Pathway Calculator*", Kementerian Energi dan Sumber Daya Mineral Republik Indonesia.
- Eze, J.I. dan Agbo K. E., 2010, "*Maximizing the Potentials of Biogas Through Upgrading*", American Journal of Scientific and Industrial Research.
- Fischer M. E., 2010, "*Biogas Purification Using Biofiltration*", Thesis of Master Applied Science in Chemical Engineering, University of Waterloo, Canada.
- Glub, J.C. dan Diaz L. F., 1991, "*Biogas Purification Process. Biogas and Alcohol Fuel Production*", The JP Press Inc Vol. 2.
- Harasimowicz, M., P. Orluk, G. Zakrzewska-Trznadel, dan A.G. Chmielewski, 2007, "*Application of Polyimide Membranes for Biogas Purification and Enrichment*", Journal of Hazardous Materials, Vol. 144, Hal. 698 – 702.

- Haryadi, 2011, "*Penurunan Konsentrasi Gas CO<sub>2</sub> pada Biogas dengan Metode Absorpsi Menggunakan Larutan Ca(OH)<sub>2</sub>*", Tesis Universitas Gadjah Mada.
- Hullu J., 2008, "*Comparing Different Biogas Upgrading*", Techniques Interim Report, Eindhoven University of Technology.
- Ibrahim, A. Y., F.H. Ashour, A.O. Ghallab, dan M. Ali, 2014, "*Effect of Piperazine on Carbon Dioxide Removal From Natural Gas Using Aqueous Methyldiethanolamine*", Journal of Natural Gas Science and Engineering, Hal. 894 – 899.
- Kwartiningsih, Endang, Arif Jumari, Eka Pitri W., dan Sumarni, 2009, "*Pemodelan Matematis dan Penyelesaian Numeris pada Absorpsi H<sub>2</sub>S Menggunakan Larutan Absorben Fe-EDTA dalam Packed Column*", Ekuilibrium Vol. 8, No. 1, Hal. 17 – 24.
- Lastella, G., C. Testa, G. Cornacchia, M. Notornicole, F. Voltasio, dan V. K. Sharma, 2002, "*Anaerobic Digestion of Semi-Solid Organic Waste : Biogas Production and Its Purification*", Energy Conversion and Management, Hal. 63-75.
- Levenspiel, O., 1999, "*Chemical Reaction Engineering 3<sup>rd</sup> ed*", John Wiley and Sons, New York.
- Mara, I. M., 2012, "*Analisis Penyerapan Gas Karbondioksida (CO<sub>2</sub>) Dengan Larutan NaOH Terhadap Kualitas Biogas Kotoran Sapi*", Dinamika Teknik Mesin, Vol. 2, No.1, Jurusan Teknik Mesin Fakultas Teknik Universitas Mataram, Mataram.
- Maryana, Rono, Satrio K. W., dan M. Kismurtono, 2008, "*Proses Pemurnian Metana dari Biogas Menggunakan Larutan NaOH dan KOH*", Seminar Nasional Fundamental dan Aplikasi Teknik Kimia, ISSN 1410-5667.
- Mohanty, Vishal, 2014, "*Simulation of Methyldiethanolamine Carbon Dioxide – Water System Using Equilibrium Approach*", Tesis National Institute of Technology Rourkela.
- Muraia, Shinji, 2013, "*Novel Hindered Amine Absorbent for CO<sub>2</sub> Capture*", Energy Proc. 37.
- Mutiari, Anies, 2012, "*Keseimbangan dan Proses Kecepatan pada Mekanisme Penjerapan Gas Karbondioksida Menggunakan Strong Base Anion Exchange Resin untuk Purifikasi Biogas*", Tesis Universitas Gadjah Mada.
- Nair, Praveen S dan P.P. Selvi, 2014, "*Absorption of Carbon Dioxide in Packed Column*", International Journal of Scientific and Research Publication, Vol. 4.
- Noyola, A., J. M. Morgan-Sagatume, dan J. E. Lopez-Hernandez, 2006, "*Treatment of Biogas Producted in Anaerobic Reactorsfor Domestic Wastewater: Odor Control and Energy/Resource Recovery*", Journal of Reviews in Environmental Science and Biotechnology, Vol. 5, Hal. 93 – 114.
- Prasetya, Andhika, Denny Widhiyaningrum, dan Sugiarto, 2012, "*Pengaruh konsentrasu NaOH terhadap kandungan gas CO<sub>2</sub> dalam proses purifikasi biogas sistem continue*", Jurusan Teknik Mesin, Fakultas Teknik, Universitas Brawijaya.
- Rochelle, Gary T., 2009, "*Amine Scrubbing for CO<sub>2</sub> Capture*", Science, Vol. 325, Hal. 1652 – 1654.

- Sada, Eizo, Hidehiro Kumazawa, dan M. A. But, 1978, "*Solubility and Diffusivity of Gases in Aqueous Solution Amines*", Journal of Chemical Engineering Data, Vol. 23, Hal. 161 – 163.
- Savery W. C., dan Cruzon D. C., 1972, "*Methane Recovery from Chicken Manure*", J. Water Pollution Control Fed, Hal. 2349 – 2354.
- Seadi, Teodorita Al, Dominik Rutz, Heinz Prassl, Michael Kottner, Tobias Finsterwalder, Silke Volk, dan Rainer Janseen, 2008, "*Biogas Handbook*", University of Southern Denmark Esbjerg.
- Simamora, S., 1989, "*Pengelolaan Limbah Peternakan (Animal Waste Management). Teknologi Energi Gasbio*", Fakultas Politeknik Pertanian IPB Bekerjasama dengan Direktorat Pendidikan Menengah Kejuruan. Dirjen Pendidikan Dasar dan Menengah, Departemen P dan K.
- Tan, L.S., A.M. Shariff, K.K. Lau, dan M.A. Bustam, 2012, "*Factors affecting CO<sub>2</sub> absorption efficiency in packed column: A review*", Journal of Industrial and Engineering Chemistry 18, Hal. 1874 – 1883.
- Versteeg, Geert F., and Wim P. M. Van Swaaij, 1988, "*Solubility and Diffusivity of Acid Gases (CO<sub>2</sub>, N<sub>2</sub>O) in Aqueous Alkanolamine Solutions*", J. Chem. Eng. Data, Vol. 33, Hal. 29 – 34.
- Wellinger A, and A. Lindeberg, 1999, "*Biogas Upgrading and Utilization*", Task 24: Energy from Biological Conversion of Organic Wastes.
- Wellinger, A. and A. Lindeberg, 2000, "*Biogas Upgrading and Utilization – IEA Bioenergy*", Task 24, Hal.20, International Energy Association, France.
- Wise, D. L., 1981, "*Analysis of System for Purification of Fuel Gas. Fuel Gas Production from Biomass*", CRC Press, Vol. 2.
- Zelege, Gizachew Assefa, 2014, "*Upgrading Biogas Produced from Biogas Pilot Plant through Absorption*", Addis Ababa University.