



DAFTAR PUSTAKA

- Alkhabbaz, M. A., Bollini, P., Foo, G. S., Sievers, C., and Jones, C. W., 2014, Important Roles of Enthalpic and Entropic contributions to CO₂ Capture from Simulated Flue Gas and Ambient Air using Mesoporous Silica Grafted Amines, *J. Am. Chem. Soc.*, 136, 1370-1374.
- Anonim, 2016, Energy and Environmental Research Center, What is CO₂ Plains CO₂ Reduction Partnership, <http://www.undererc.org/pcor/sequestration/whatisco2.aspx>, diakses tanggal 23 Februari 2018.
- Ardiaswari, R. L., 2016, Sintesis *Beads* Ca-Alginat-Bentonit sebagai Adsorben CO₂, *Skripsi*, Universitas Gadjah Mada, Yogyakarta.
- Aresta, M., and Angelini, A., 2016, The Carbon Dioxide Molecule and The Effects of its Interaction with Electrophiles and Nucleophiles, *Top. Organomet. Chem.*, 53, 1-38.
- Belmabkhout, Y., and Sayari, A., 2009, Effect of pore expansion of mesoporous Silica on CO₂ adsorption over a wide range of conditions, *J. Adsorption.*, 15, 318-328.
- Berger, J., Reist, M., Mayer, J.M., O., Peppas, N.A., and Gurny, R., 2004, Structure and Interaction in Covalently and Ionically Crosslinked Chitosan Hydrogels for Biomedical Application, *Eur. J. Pharm. Biopharm.*, 57, 19-34.
- Bokau, N. A., 2013, Sintesis Membran Kitosan Termodifikasi Abu Sekam Padi Untuk Proses Deklororasi, *Skripsi*, Universitas Negeri Semarang, Semarang.
- Buhani dan Suharso, 2010, Modifikasi Silika dengan 3-Aminopropiltrimetoksisilan Melalui Proses Sol Gel untuk Adsorpsi Ion Cd(II) dari Larutan, *J. Sains MIPA*, 16(3), 177-183.
- Dlugokencky, 2018, Trends in Atmospheric Carbon Dioxide, <http://www.esrl.noaa.gov/gmd/ccgg/trends/global.html>, diakses tanggal 22 Februari 2018.
- Dutta, P. K., Duta, J., and Tripathi, V. S., 2004, Chitin and Chitosan: Chemistry, Properties and Applications., *J. Sci. Ind. Res.*, 63(1), 20-31.
- Fujiki, J., and Yogo, K., 2014, Carbon Dioxide Adsorption onto Polyethylenimine-Functionalized Porous Chitosan Beads, *J. Energy Fuels.*, 28, 6467-6474.



- Hahn, M. W., Steib, M., Jentys, A., and Lercher, J. A., 2015, Mechanism and Kinetics of CO₂ Adsorption on Surface Bonded Amines, *J. Phys. Chem.*, 119, 4126-4135.
- Hastuti, S., Nuryono, dan Kuncaka, A., 2015, L-Arginine-Modified Silica for Adsorption of Gold(III), *Indones. J. Chem.*, 15(2), 108-115.
- Ho, Y . S., Ng, J. C. Y., and McKay, G., 2000, Kinetics of Polutant Sorption by Biosorbent : Review, *J. Sep & Purf Meth*, 29, 189-232.
- Huang, C.H., Chang, K.P., Ou, H.D., Chiang, Y.C., and Wang, C.F., 2011, Adsorption of Cationic Dyes onto Mesoporus Silica, *Micropor. Mesopor. Mater.*, 141, 102-109.
- Jal, P., K., Patel, and Mishra, B., K., 2004, Chemical Modification of silica Surface by Imobilization of Functional Groups for Extrative Concentration of Metal Ions, *Talanta*, 62, 1005-1028.
- Kareem, S.H., Ali, I.H., and Jalhoom. M.G., 2014, Synthesis and Characterization of Organic Functionalized Mesoporus Silica and Evaluated Their Adsorptive Behavior for Removal of Methylene Blue from Aqueous Solution, *Am. J. Environ. Sci.*, 10, 48-60.
- Khan, T.A., Peh, K.K., and Hung, S.C., 2002, Reporting Degree of Deacetylation Values of Chitosan: The Influence Analytical methods, *J. Pharm. Sci.*, 5(3), 205-212.
- Kouketsu, T., Duan, S., Kai, T., Kazama, S., and Yamada, K., 2006, PAMAM Dendrimer Composite for CO₂ Separation: Formation of a Chitosan gutter layer, *J. Membrane Sci.* 287, 51-59.
- Krismastuti, F. S. H., Budiman, H., dan Setiawan, A, H., 2008, *Adsorpsi ion logam Cadmium dengan silika modifikasi*, Pusat Penelitian Kimia, LIPI, Tangerang.
- Kuroki, V., Bosco, G. E., Fadini, P. S., Mozeto, A. A., Cestari, A. R. and Carvalho, W. A., 2014, Use of a La(III)-Modified Bentonite for Effective Phosphate Removal from Aqueous Media, *J. Hazard. Mater.*, 274, 124-131.
- Kyas, G. Z., and Bikiaris, D. N., 2015, Recent Modifications of Chitosan for Adsorption Applications: A Critical and Systematic Review, *Mar. Drug.*, 13, 312-337.
- Muriana, R., 2017, Beads Ca-Alginat-Kaolin sebagai Adsorben Gas CO₂, *Skripsi*, Universitas Gadjah Mada, Yogyakarta.



- Mourya, V. K., and Inamdar, N. N., 2008, Chitosan-Modifications and Applications: Opportunities Galore, *React. Funct. Polym.*, 68, 1013-1051.
- Ngo, D.H., Vo, T.S., Ngo, D.N., Kang, K.H., Je, J. Y., Pham, H.N.D., Byun, H.G., and Kim. S.K., 2015, Biological Effects of Chitosan and its Derivatives, *J. Food Hydrocoll.*, 51, 200-216.
- Osick, J., and Cooper, I. L., 1982, *Adsorption*, Ellis Horwood Limited, England.
- Pamurtya, C.I., 2016, Studi Adsorpsi Gas CO₂ Menggunakan Adsorben *Beads* Ca-Alginat-Zeolit, *Skripsi*, Universitas Gadjah Mada, Yogyakarta.
- Riawati, P., 2016, Pembuatan Manik Kitosan/*k*-Karaginan Sebagai Adsorben Biru Metilena, *Skripsi*, Universitas Gadjah Mada, Yogyakarta.
- Rinaudo, M., 2006, Chitin and Chitosan: Properties and applications, *J. Prog. Polym. Sci.* 31, 603-632.
- Rosca, C., Popa, M.M., Lisa, G., and Chitanu, C.G., 2005, Interaction of Chitosan with Natural or Synthetic Anionic Polyelectrolytes: The Chitosan Carboxymethylcellulose Complex, *Carbohydr. Polym.*, 62, 35-41.
- Royani, A., Hermansyah, F., Rahman, N, A., Setyawan, H., dan Yuwana, M., 2012, Pembuatan Silika gel dari Abu Bagasse yang dicangkok Gugus Amine secara In-situ Sebagai Adsorben Gas Karbon Dioksida (CO₂), *J. Teknik POMITS*, 1(1), 1-4.
- Sakpal, T., Kumar, A., Kamble, S., and Kumar, R., 2012, Carbon dioxide capture using amine functionalized silica gel, *J. Sci*, 51 A, 1214-1222.
- Sulaiman, N., dan Cahyaningrum, S, E., 2013, Penentuan pH optimum adsorpsi ion logam Cr(VI) oleh kitosan bead dan kitosan silika bead, *J of Chem*, 2 (1), 89-93.
- Suprihatin, Indrasti, N. S., dan Romli, M., 2002, Potensi Penurunan Emisi Gas Rumah Kaca Melalui Pengomposan Sampah, *j. Tek. Ind. Pert*, 18(1), 53-59.
- Viswanathan, N., and Meenakshi, S., 2010, Selective Fluoride Adsorption by A Hydrotalcite/Chitosan Composite, *Appl. Clay Sci.*, 48, 607-611.
- Wang, N., Yao, L., Wang, J., Zang, Z., Qiao, A. and Long, D., 2016, Adsorption and Regeneration Study of Polyethylenimine-impregnated millimeter-sized Mesoporus Carbon Spheres Forpost-Combustion CO₂ Capture, *Appl. Energy*, 168, 282-290.



- Wei, L., Gao, Z., Jing, Y., and Wang, Y, 2013, Adsorption of CO₂ from Simulated flue gas on pentaethylenehexamine-loaded mesoporous silica support adsorbent, *Ind. Eng. Chem.*, 52, 14965-14974.
- Wong, S. D., 2002, *Carbon Dioxide and Separation Technology*, Alberta Research Council Inc., Canada.
- Xin, Q., Fu, J., Chen, Z., Liu, S., Yan, Y., Zhang, J., and Xu, Q., 2015, Polypyrrole Nanofibers as A High-efficient Adsorbent for the Removal of Methyl Orange from Aqueous Solution, *J. Enviro. Chem. Eng.*, 3(3), 1637-1647.
- Yang, S. T. Z., Choi, D. K., and Raw, K. H., 2010, Adsorption of Carbon dioxide using Polyethylenimine modified silica gel, *Korean J. Chem, Eng.*, 27(6), 1910-1915.