

DAFTAR PUSTAKA

- Abdalla, Abedlaati, M., A., Siddig, B., E., Habuuznien, M., Gasmelseed, Gurashi, A. 2014. Production of Caustic Soda from Natural Local Trona. *Journal of Applied and Industrial Sciences*. Sudan.
- Basuki, K. T., Setiawan, Budi. Nurimaniwathy. 2008. *Penurunan Konsentrasi CO dan NO₂ Pada Emisi Gas Buang menggunakan Arang Tempurung Kelapa yang Disisipi TiO₂*. Seminar Nasional IV. SDM Teknologi Nuklir. Yogyakarta, 25-26 Agustus 2008.
- Canadell, J.G. 2007. Contributions to Accelerating Atmospheric CO₂ Growth from Economic Activity, Carbon Intensity and Efficiency of Natural Sinks. *Proc. Natl. Acad. Sci. U.S.A.* 104 (47), 18866-18870.
- Chang, A.C.C., Chuang, S.C.C., Gray, M. and Soong, Y. 2009. In-Situ Infrared Study of CO₂ Adsorption on SBA-15 Grafted with γ -(Aminopropyl) triethoxysilane. *Energy Fuels* 17: 468–473.
- Coates, John. 2003. *Interpretation of Infrared Spectra, A Practical Approach*. USA: Encyclopedia of Analytical Chemistry.
- Cook, Michael. 1998. *The Leblanc Soda Process: A Gothic Tale for Freshman Engineers*. Chemical Engineering Education. University of Massachusetts.
- Diaz, Eva, Munoz, Emilio, Vega Aurelio, Ordóñez, Salvador. 2008. Enhancement of the CO₂ Retention Capacity of Y Zeolites by Na and Cs Treatments: Effect of Adsorption Temperature and Water Treatment. *Ind. Eng. Chem. Res.* 47 (2): 412–418. Spain
- Fessenden, R.J., dan Fessenden, J.S. 1999. *Kimia Organik, Jilid 1*. Alih Bahasa oleh Pudjaatmaka A.H., Penerbit Erlangga, Jakarta.

- Gatehouse, B.M., Livingstone, S.E., Nyholm, R.S. 1958. The Infrared Spectra os Some Simple and Complex Carbonates. *Journal of The Chemical Society*. pp. 3137-3142.
- General Chemical Industrial Productions. 2014. *Soda Ash: Technical & Handling Guide*.
- Ginting, A., Indaryanti, S., Setiawan, J. 2005. Penentuan Parameter Uji dan Ketidakpastian Panas pada *Differential Scanning Calorimetry*. *Jurnal Teknologi Bahan Nuklir*. Vol. 1, No.1. Januari 2005.
- Glass, Gary, B. 1998. *Proceedings of The First International Soda Ash Conference Volume 1*. Public Information Circular No. 39. Wyoming State Geological Survey. Laramie, Wyoming.
- Glode, Francis. 2012. *Lab-Scale Industrial Processes*. Volume 1 HClO₃Chem.TK.
- Guttman, Kasprzycka. 1996. *Material For Experiment No. 10: Continuous Process of Sodium Bicarbonate Production by Solvay Method*. Wydawnictwa UW, Warszawa.
- Hadi, Rustan. 2011. Sosialisasi Teknik Pembuatan Arang Tempurung Kelapa dengan Pembakaran Sistem Suplai Udara Terkendali. *Buletin Teknik Pertanian*. Vol. 16, No. 2, 2011: hal. 77-80.
- Haris, M.J., Salje, E.K.H. 1992. The Incommensurate Phase of Sodium Carbonates: An Infrared Absorption Study. *Journal of Physics: Condensed Matter*. Vol.4, No. 18.pp: 4399-2995.
- Harlick, P.J.E. and Tezel, F.H. 2004. An Experimental Adsorbent Screening Study for CO₂ Capture from N₂. *Microporous Mesoporous Mater*. 76: 71–79.
- Haynes, H.W. 1997. Solution Minning of Trona. *In Situ*. Vol 21 (4), pp. 357-394.
- Hester, R.E., Harrison, R.M. 2010. Carbon Capture, Sequestration and Storage. *Issues in Environmental Science and Technology*, 29, Royal Society of Chemistry. Cambridge.
- Hudi, Y. 2009. *Perancangan Pabrik Natrium Karbonat dengan Proses Solvay dari Amonia, Garam dan Batu Kapur dengan Kapasitas 250.000 Ton/Tahun*. Tugas Akhir. Universitas Muhammadiyah. Surakarta.

Human and Environmental Risk Assessment. 2005. *Sodium Carbonate*. Edition 2.0 April, 2005.

Kazama, S., Teratomo, T., Haraya, K. 2002. Carbon Dioxide and Nitrogen Transport Properties of Bis(phenyl)fluorine-Based Cardo Polymer Membranes. *Journal of Membrane Science*. 207: 91-104.

Keifer, D. 2002. Chemistry Chronicles. *Today's Chemist*. Vol.11, No.1, pp 45-46,49.

Kim, W. J., Lee, D.Y., dan Lee H.G. 2001. Decomposition of Na_2CO_3 by Interaction with SiO_2 in Mold Flux of Stell Continuous Casting. *ISIJ International*. Vol 41. No. 2. pp: 116-123.

Klancnik, G., Medved, J., Mrvar, P. 2009. Differential Thermal Analysis and Differential Scanning Calorimetry as a Method of Material Investigation. *RMZ-Materials and Geoenvironment*. Vol. 57, No. 1, pp. 127-142.

Lindayanti. 2006. *Teknologi Pembuatan Arang Tempurung Kelapa*. Liptan Agdex:161/78 No. 01/BPTP Jambi/2006.

Lindeman, H.B. 1954. Sodium Carbonate Brine and Trona Deposits in Sweetwater County, Wyoming. *Geological Survey Circular* 235. California.

Mahmoudkhani, M., Keith, D.W. 2009. Low-Energy Sodium Hydroxide Recovery for CO_2 Capture from Atmospheric Air – Thermodynamics Analysis. *International Journal of Greenhouse Gas Control*. Canada.

Marland, G., Boden, T. A., and Andres R. J. 2003. *Global, Regional, and National CO_2 Emissions*. In Trends: A Compendium of Data on Global Change, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U. S. Department of Energy, Oak Ridge, Tenn., U.S.A.

Morrin, M. 2000. *Still Water Runs Deep-There's more to Global Soda Ash Markets than Meets The Eye*. World Petrochemical Conference, Houston, USA.

Nikulshina, V., Ayes, N., Galvez, M.E., Steinfeld, A. 2008. Feasibility of Na-Based Thermochemical Cycles for The Capture of CO_2 from Air – Thermodynamic and Thermogravimetric Analyses. *Chemical Engineering Journal* 140. pp. 62–70.

- Ningrum R., S. 2013. *Karakteristik Struktur dan Mikrostruktur Na₂CO₃ Berbasis Tempurung Kelapa*. Skripsi. Universitas Lampung. Bandar Lampung.
- Örgül, Sibel. 2003. *Evaluation of Soda Ash Production Parameters from Beypazary Trone Ore*. Tesis. The Department of Mining Engineering. The Middle East Technical University.
- Pevida C, Plaza M.G, Arias B, Fermoso J, Rubiera F, Pis J.J. 2008. Surface Modification of Activated Carbons for CO₂ Capture. *Appl. Surf. Sci.* (254): 7165-7172.
- Plaza, M.G, Pevida, C., Pis, J.J., Rubiera, F. 2011. Evaluation of The Cyclic Capacity of Low-Cost Carbon Adsorbents for Post-Combustion CO₂ Capture. *Energy Procedia*. 4, pp.1228–1234. Spain.
- Powell, C.E. and Qiao, G.G. 2006. Polymeric CO₂/N₂ Gas Separation Membranes for The Capture Carbon Dioxide from Power Plant Flue Gases. *J. Membr. Sci.* 279: 1–49.
- Prasetya, A., Widhiyanuriyawan, D., dan Sugiarto. 2012. *Pengaruh Konsentrasi NaOH Terhadap Kandungan Gas CO₂ dalam Proses Purifikasi Biogas Sistem Continue*. Skripsi. Universitas Brawijaya, Malang.
- Prihandoko, B., Sardjono, P., Zulfia, A., Waskitoaji, W. 2014. The Phase Transformation on LTAP Composite Development on Sodium Lime Silica Glass Matrices with Sintering Above Glass Transition. *Proceeding of the 6th National Seminar on Neutron and X-Ray Scattering*. Tangerang.
- Rackley, S., A. 2010. *Carbon Capture and Storage*. Oxford: Butterworth-Heinemann
- Rafsanjani, R.A., Sembiring, S., Simanjuntak, W. 2013. Pengaruh Laju Alir CO₂ Hasil Pembakaran Tempurung Kelapa terhadap Pembentukan dan Karakterisasi Na₂CO₃. *Prosiding Semirata FMIPA Universitas Lampung*. Bandar Lampung. Hal. 307-311.
- Rao, A.B. dan Rubin, E.S. 2002. A Technical, Economic, and Environmental Assessment of Amine-Based CO₂ Capture Technology for Power Plant Greenhouse Gas Control”. *Environ. Sci. Tech.* 36, 4467–4475.
- Rojac , T., Kosec, M., Segedin, P., Malic, B., Holc, J. 2006. The Formation a Carbonato Complex during The Mechanochemical Treatment of a Na₂CO₃-Nb₂O₅ Mixture. *Solid State Ionics*. Vol. 177. No. 33-34. pp: 2987-2995.

- Rosaline, W.,E. 2013. *Karakteristik Fungsionalitas dan Termal Na₂CO₃ Berbasis Tempurung Kelapa.* Skripsi. Jurusan Fisika Fakultas MIPA Universitas Lampung. Bandar Lampung.
- Santini, K., Fastert, T., Harris, R. 2004. Soda Ash. *6th Edition of Industrial Minerals and Rocks.*
- Schweitzer, Jim. 2010. Purdue University: *Scanning Electron Microscope.* <Http://www.purdue.edu/rem/rs/sem.htm>. Diakses tanggal 30 Agustus 2014.
- Shafeeyan, M., S., Wan Daud, WM., S., Houshmand, A., Shamiri, A. 2010. A Review On Surface Modification Of Activated Carbon For Carbon Dioxide Adsorption. *Journal of Analytical and Applied Pyrolysis.* pp 143–151.
- Spector, N.A., Dodge, B.F. 1946. *Removal of Carbon Dioxide from Atmospheric Air.* Trans. Am. Inst. Chem. Eng. 42, 827-848
- Stuart, Barbara. 2004. *Infrared Spectroscopy: Fundamentals and Application.* John Wiley & Sons, Ltd.
- Suhartana. 2006. Pemanfaatan Tempurung Kelapa sebagai Bahan Baku Arang Aktif dan Aplikasinya Untuk Penjernihan Air Sumur di Desa Belor Kecamatan Ngaringan Kabupaten Grobogan. *Berkala Fisika.* Vol. 9, No. 3. hal 151-156.
- Suharto dan Ambarwati, 2013. Pemanfaatan Kelapa (Batang, Tapas, Lidi, Mancung, Sabut, dan Tempurung) Sebagai Bahan Baku Kerajinan. *Jurnal Humaniora Hibah Bersaing.*
- Suryanarayana, C., and Norton, M.,G. 1998. *X-Ray Diffraction: A Practical Approach.* pp. 273.
- Tavender, Susan M., Steven A. Johnson, Daniel Balsom, Anthony W. Parker, and Roger H. Bisby. 1997. *The Carbonate, Na₂CO₃, In Solution Studied By Resonance Raman Spectroscopy.* Vol. 19 November 1997.
- Tepe, J.B., Dodge, B.F. 1943. *Absorption of Carbon Dioxide by Sodium Hydroxide Solutions in a Packed Column.* Trans. Am. Inst. Chem. Eng. 39, 255-276.
- Thiruvenkatachari, R., Su, S., An, H., and Yu, X.X. 2009. Post Combustion CO₂ Capture by Carbon Fibre Monolithic Adsorbents. *Progress in Energy and Combustion Science.* Vol. 35, No. 5, pp. 438-455.

- Wagialla, K.M., Al-Mutaz, I.S., El-Dahshan, M.E. 1992. The Manufacture of Soda Ash in The Arabian Gulf. *International Journal of Production Economics* 27, pp. 145-153.
- West, A.R. 1984. *Solid State Chemistry and Its Application*. John Wiley and Sons, Singapore, hal 104.
- Widyastuti, S., Saloko, S., Murad, Rosmilawati. 2012. Optimasi Proses Pembuatan Asap Cair dari Tempurung Kelapa sebagai Pengawet Makanan dan Prospek Ekonomisnya. *Agroteksos* Vol. 22 No 1.
- Wikipedia. 2014. http://en.wikipedia.org/wiki/Sodium_oxide. Sodium Oxide. Diakses tanggal 30 Agustus 2014.
- Wisniak, Jaime. 2003. Sodium Carbonate-from Natural Resources to Leblanc and Back. *Indian Journal of Chemical Technology*. Vol. 10, January 2003, pp. 99-112.
- Yusuf, Z., and Cameron, J. 2004. Decarbonization Reactions between Sodium Metaborate and Sodium Carbonate. *Ind. Eng. Chem. Res.* (43), pp. 8148-8154.
- Zhu, D., Ray, C. S., Zhou, W., Day, D. E. 2004. On Glass Formation for a $\text{Na}_2\text{O} \cdot 4\text{TeO}_2$ Melt: Effect of Melting Temperatur, Time, and Raw Material. *Journal of Material Science*. Vol. 39, No. 24, pp. 7351-7357 (7).
- Zintl, E., Harder, A., Dauth B. 1934. Lattice Structure of The Oxyde, Sulfides, Selenides and Tellurides of Lithium, Sodium and Potassium. *J. Electrochem. Angew. Phys. Chem.* 40: 588–93.