

## DAFTAR PUSTAKA

- American Society for Testing and Materials. (2003). *Patent No. ASTM C618-03*.
- Andrade, L., Rocha, J., dan Cheriaf, M. (2009). Influence of Coal Bottom Ash as Fine Aggregate on Fresh Properties of Concrete. *Construction and Building Materials*, 23(2), 609-614.
- Anseau, M., Leung, J., Sahai, N., dan Swaddle, T. (2005). Interactions of Silicate Ions with Zinc (II) and Aluminium (III) in Alkali Aqueous Solution. *Inorganic Chemistry*, 44(22), 8023-8032.
- Brown, M. E., Dollimore, D., dan Galwey, A. K. (1980). Reactions in the Solid State. Dalam C. Bamford, & C. Tipper, *Comprehensive Chemical Kinetics* (Vol. 22 Chapter 3). Amsterdam: Elsevier.
- Carette, G., dan Malhotra, V. (1986). *Characterization of Canadian Fly Ashes and Their Relative Performance in Concrete*. Energy, Mines and Resources Canada. Ottawa: ON, CANMET Report.
- Chindaprasirt, P., Jaturapitakkul, C., Chalee, W., dan Rattanasak, U. (2009). Comparative Study on the Characteristics of Fly Ash and Bottom Ash Geopolymers. *Waste Management*, 29(2), 539-543.

- Davidovits, J. (1976). Solid Phase Synthesis of a Mineral Block Polymer by Low Temperature Polycondensation of Aluminosilicate Polymers. *IUPAC International Symposium on Macromolecules*. Stockholm.
- Davidovits, J. (1988). Geopolymer Chemistry and Properties. *Proceeding of the 1st International Conference on Geopolymer*, (hal. 49-67). Compiègne, France.
- Davidovits, J. (1994). Properties of Geopolymer Cements. *Alkaline Cements and Concretes*, 131-149.
- Davidovits, J. (1999). Chemistry of Geopolymeric Systems. *Geopolymer 99' International Conference*.
- De Silva, P., Sagoe-Crenstil, K., dan Sirivivatnanon, V. (2007). Kinetics of Geopolymerization: Role of Al<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub>. *Cement and Concrete Research*, 37, 512-518.
- Direktorat Jenderal Ketenagalistrikan. (2016, February 16). *Kementerian Energi dan Sumber Daya Mineral, Direktorat Jenderal Ketenagalistrikan*. Dipetik April 12, 2017, dari Pemerintah Dorong Pemanfaatan Limbah PLTU: <http://www.djk.esdm.go.id/index.php/detail-berita?ide=4060>
- Duxson, P., Provis, J., Lukey, G., Mallicoat, S., Kriven, W., dan Van Deventer, J. (2005). Understanding the Relationship Between Geopolymer Composition, Microstructure, and Mechanical Properties, *Coolids Surf. A Physicochem. Eng. Asp.*, 47-58.

- Ha, T.-H., Muralidharan, S., Bae, J.-H., Ha, Y.-C., Lee, H.-G., Park, K., dan Kim, D.-K. (2005). Effect of Unburnt Carbon on the Corrosion Performance of Fly Ash Cement Mortar. *Construction and Building Materials*, 509-515.
- Hardjito, D., dan Shaw Shen, F. (2010). Fly Ash-Based Geopolymer Mortar Incorporating Bottom Ash. *4*(1).
- Hardjito, D., Wallah, S., Sumajouw, D., dan Rangan, B. (2004). On The Development of Fly Ash-Based Geopolymer Concrete. *ACI Materials Journal*.
- International Energy Agency (IEA). (2017, September). *Key World Energy Statistics in 2017*. Dipetik July 1, 2018, dari <https://www.iea.org/publications/freepublications/publication/KeyWorld2017.pdf>
- Kementerian Energi dan Sumber Daya Mineral. (2015, March 11). *Pusat Pengembangan Sumber Daya Manusia - Geologi, Mineral dan Batubara*. Dipetik April 12, 2017, dari Limbah dan Pemanfaatan Abu Batubara: <http://www.pusdiklat-minerba.esdm.go.id/index.php/kerjasama/item/304-limbah-dan-pemanfaatan-abu-batubara>
- Khawam, A., dan Flanagan, D. (2006). Solid-State Kinetic Models: Basics and Mathematical Fundamentals. *J. Phys. Chem. B*, *110*(35), 17315-17328.
- Komnitsas, K., dan Zaharaki, D. (2007). Geopolymerisation: A Review and Prospects for the Minerals Industry. *Minerals Engineering*, *20*, 1261-1277.

- Krol, M., Minkiewicz, J., dan Mozgawa, W. (2016). IR Spectroscopy Studies of Zeolites in Geopolymeric Materials derived from Kaolinite. *Journal of Molecular Structure*, 200-206.
- North, M., dan Swaddle, T. (2000). Kinetics of Silicate Exchange in Alkaline Aluminosilicates Solutions. *Inorganic Chemistry*, 44(22), 2661-2665.
- Peraturan Pemerintah Republik Indonesia. (2014). Peraturan Pemerintah Republik Indonesia No. 101 Tahun 2014 tentang Pengelolaan Limbah Bahan Berbahaya dan Beracun.
- Ramezaniapour, A. (2014). *Cement Replacement Materials*. New York: Springer.
- Ristinah, Zacoeb, A., Soehardjono, M. D., A., dan Setyowulan, D. (2012). Pengaruh Penggunaan Bottom Ash sebagai Pengganti Semen pada Campuran Batako Terhadap Kuat Tekan Batako. *Jurnal Rekayasa Sipil*, 6(3), 264-271.
- Siyal, A., Azizli, K., Man, Z., Ismail, L., dan Khan, M. (2016). Geopolymerization Kinetics of Fly Ash based Geopolymers using JMAK Model. *Ceramics International*, 15575-15584.
- Snellings, R., Mertens, G., dan Elsen, J. (2012). Supplementary Cementitious Materials. *Reviews in Mineralogy dan Geochemistry*, 74, 211-278.
- Stevenson, M., dan Sagoe-Crenstil, K. (2005). Relationship Between Composition, Structure, and Strength of Inorganic Polymers: part 1 -

Metakaolin derived Inorganic Polymers. *Journal of Material Science*, 40, 2023-2036.

Swaddle, T. (2001). Silicate Complexes of Aluminium (III) in Aqueous Systems. *Coord. Chem. Rev.*, 219-221, 665-686.

ul Haq, E., Padmanabhan, S., dan Licciulli, A. (2014). Synthesis and Characteristics of Fly Ash and Bottom Ash based Geopolymers - A Comparative Study. *Ceramics International*, 2965-2971.

Van Deventer, J. (2000). The Conversion of Mineral Waste to Modern Materials using Geopolymerization. *MINPREX 2000 International Congress on Mineral Processing and Extractive Metallurgy* (hal. 33-41). Melbourne: The Australian Institute of Mining and Metallurgy.

Van Jaarsveld, J., Van Deventer, J., dan Lukey, G. (2002). The Effect of Composition and Temperature on the Properties of Fly Ash and Kaolinite based Geopolymers. *Chem. Eng. J.*, 89, 63-73.

Varmuza, K., Demuth, W., dan Karlovits, M. (2002). Structural and Spectral Similarity. *CHEM 02 - Biannual Conference on Chemistry*. Cairo: Chemistry Department Cairo University.

Villar-Cocina, E., Frias Rojas, M., Valencia Morales, E., dan Savastano, H. (2009, January). Study of the Pozzolanic Reaction Kinetics in Sugar Cane Bagasse-clay Ash/Calcium Hydroxide System: Kinetic Parameters and Pozzolanic Activity. *Advances in Cement Research*, 21(1), 23-30.

- Vyazovkin, S., dan Shirrazzuoli, N. (2006). Isoconversional Kinetic Analysis of Thermally Stimulated Processes in Polymers. *Macromolecular Rapid Communications*, 1515-1532.
- Wahana Lingkungan Hidup Indonesia. (2015, Juli). *Lembar Informasi Dampak Proyek Listrik Batubara*. Diambil kembali dari Issuu Web site: <https://issuu.com/walhi/docs/lembar-informasi-pltu-edisi-juli-2015>
- Weng, L., Sagoe-Crenstil, K., dan Brown, T. (2002). Speciation and Hydrolysis Kinetics of Aluminates in Inorganic Polymer Systems. *Geopolymer 2002 International Conference*. Melbourne.
- Xu, H. (2001). *Geopolymerisation of Aluminosilicate Minerals*. PhD Thesis, University of Melbourne, Department of Chemical Engineering, Melbourne.
- Xu, H., dan Van Deventer, J. (2000). The Geopolymerisation of Alumino-Silicate Minerals. *International Journal of Mineral Processing*, 247-266.