

## DAFTAR PUSTAKA

- Arkles, B., 2006, Hydrophobicity, Hydrophilicity and Silanes, *Paint and Coat. Ind.*, 22(10), 114.
- Berendjchi, A., Khajavi, R., and Yazdanshenas, M.E., 2011, Fabrication of superhydrophobic and antibacterial surface on cotton fabric by doped silica-based sols with nanoparticles of copper, *Nano. Res. L.*, 6, 594.
- Brinker, C.J., and Scherer, G.W., 1990, *Sol-Gel Science: The Physics and Chemistry of Sol-Gel Processing*, Academic Press, New York.
- Chen, K.L., Zhou, S.X., and Wu, L.M., 2014, Facile Fabrication of Self-Repairing Superhydrophobic Coatings, *Chem. Commun.*, 50, 11891–11894.
- Dorcheh, A.S., and Abbasi, M.H., 2008, Silica aerogels; synthesis, properties and characterization, *J. Mat. Proc. Tech.*, 199, 10-26.
- El-Khatib, E.M., 2012, Antimicrobial and Self-cleaning Textiles using Nanotechnology, *Res. J. Text. and Apparel*, 16(3), 156-174.
- Feng L., Li S., Li Y., Li H., Zhang L., Song Y., Liu B., Jiang L., Zhu D., 2002, Super-Hydrophobic Surfaces: From Natural to Artificial, *Adv. Mat.*, 14(24), 1789-1799.
- Gao, L., and McCarthy J., 2006, The “Lotus Effect”: Two Reasons Why Two Length Scales of Topography Are Important, *Langmuir*, 22(7), 2966-2967.
- Gao, S., Watanabe, H., Nakane, K., and Zhao, K., 2016., Fabrication and Characterization of Superhydrophobic and Superhydrophilic Silica Nanofibers Mats with Excellent Heat Resistance. *J. Min. and Metal.*, 52(1), 87-92.
- Gao, Q., Zhu, Q., and Guo, Yuliang. (2009). Formation of Highly Hydrophobic Surface on Cotton and Polyester Fabrics using Silica Sol Nanoparticles and Nonfluorinated Alkylsilane. *Ind. Eng. Chem. Res.*, 48, 9797-9803.
- Goyal, Shefali, 2006, Silanes: Chemistry and Application. *J. Ind. Prost. Soc*, 6(1), 14-18.
- Guo, P., Zhai, S., Xiao, Z., and An, Q., 2015, One-step Fabrication of Highly Stable, Superhydrophobic Composites from Controllable and Low-cost PMH/TEOS Sols for Efficient Oil Cleanup. *J. Col. Int. Sci.*, 446, 155-162.
- Hartanto, N., Sugiharto, dan Watanabe, S., 1993, *Teknologi Tekstil Edisi Ketiga.*, Pradnya Paramita, Jakarta.

- Hayn, R.A., Owens, J.R., Boyer, S.A., McDonald, R.S., and Lee, H.J., 2011, Preparation of highly hydrophobic and oleophobic textile surfaces using microwave-promoted silane coupling, *J. M. Sci.*, 46, 2503-2509.
- Hoefnagels, F.H., Wu, D., With d.G., and Ming W., 2007, Biomimetic Superhydrophobic and Highly Oleophobic Cotton Textiles, *Langmuir*, 23, 13158-13163.
- Kavitha, C., and Dasan, K.P., 2013, Nanosilver/Hyperbranched Polyester (HBPE): Synthesis, Characterization, and Antibacterial Activity. *J. Coat. Tech. and Res.*, 10(5), 669-678.
- Kokol, V., Bozic, M., Diaz-Gonzalez, M., Guebitz, G.M., and Tzanov, T., 2009, Voltametric monitoring of enzyme-mediated indigo reduction in the presence of various fibre materials, *E, Micr. Tech.*, 45, 317-323.
- Kokol, V., Ciolacu, D., and Kovac, J., 2009, The effect of the cellulose-binding domain from Clostridium cellulovorans on the supramolecular structure of cellulose fibers, *Carbohydrate Res.*, 345, 621-630.
- Manatunga, D.C, de Silva, R.M, de Silva, K.M.N., 2015, Double Layer Approach to Create Durable Superhydrophobicity on Cotton Fabric using Nano Silica and Auxiliary non Fluorinated Material. *App. Sur. Sci.*, 360, 777-788.
- Malthig, B., and Bottcher, H., 2003, Modified Silica Sol Coating for Water-Repellent Textiles, *J. Sol-Gel Sci. Tech.*, 27, 43-52.
- Mahltig, B., Böttcher, H., Rauch, K., Dieckmann, U., Nitsche, R., and Fritz, T., 2005, Optimized UV protecting coatings by combination of organic and inorganic UV absorbers, *Thin Solid Films*, 485, 108-114.
- Neinhuis C., and Barthlott W., 1997, Characterization and Distribution of Water-repellent, Self-cleaning Plant Surfaces. *Ann Bot* 79 (6), 667-677.
- Pipatchanchai, T., and Srikulkit, K., 2007, Hydrophobicity modification of woven cotton fabric by hydrophobic fumed silica coating, *J Sol-Gel Sci Tech.*, 44, 119-123.
- Rosace, G., Colleoni, C., Donelli, I., and Freddi, G., 2013, A novel sol-gel multi-layer approach for cotton fabric finishing by tetraethoxysilane precursor, *Surf. and Coat. Tech.*, 235, 192-203.
- Shateri-Khalibad, Mohammad., and Yazdanshenas, Mohammad E., 2010, Superhidrophobic Antibacterial Cotton Textiles, *J. Col. and Int. Science*, 351, 293-298.

- Tomsic, B., Simoncic, B., and Orel, B., 2008, Sol-gel coating of cellulose fibres with antimicrobial and repellent properties, *J. Sol-Gel Sci Tech.*, 47, 44-57.
- Vilnick, A., Jerman, I., Vuk, A.S., Kozelj, M., Orel, B., Tomsic, B., Simoncic, B., and Kovacs, J., 2009, Structural Properties and Antibacterial Effects of Hydrophobic and Oleophobic Sol-Gel Coatings for Cotton Fabrics, *Langmuir*, 25(10), 5869-5880.
- Wang, C., Wang, Y., and Yin, Y., 2012, Fabrication and characterization of self-assembled multifunctional coating deposition on a cellulose substrate, *Phy. and Eng. Asp.*, 399, 92-99.
- Wang, H., Fang, J., Cheng, T., Ding, J., Qu, L., Dai, L., Wang, X., and Lin, T., 2008, One-step coating of fluoro-containing silica nanoparticles for universal generation of superhydrophobicity. *Chem. Commun*, 879, 887-879.
- Wenten, G.I., Himma, N., Anisah, S., 2015, *Membran Superhidrofobik*, Diktat Departemen Teknik Kimia ITB, Bandung.
- Xu, L., Wang, L., Shen Y., Ding, Y., and Cai, Z., 2015, Prepartation of Hexadecyltrimethoxysilane-modified Silica Nanocomposite Hydrosol and Superhydrophobic Cotton Coating, *Fibers and Polymers*, 16(5), 1082-1091.
- Xu, L., Zuang, W., and Xu B., 2011, Fabrication of superhydrophobic cotton fabrics by silica hydrosol and hydrophobization, *Surf. Sci.*, 257, 5491-5498
- Ye, W., Leung, M.F., Xin J.H., and Pei, L.Z., 2005, Novel core-shell particles with poly(n-butyl acrylate) cores and chitosan shells as an antibacterial coating for textiles, *Polymer*, 46, 10538-10543.
- Zhu, Q., Gao, Q., Guo, Y., Yang, Q.C., and Shen, L., 2011, Modified Silica Sol Coatings for Highly Hydrophobic Cotton and Polyester Fabrics Using a One-Step Procedure, *Ind. Eng. Chem. Res.*, 50, 2881-5888.
- Zimmermann, J., Felix, A., Fortunato, G., Gerhardt, L-C., and Seeger, S., 2008, A Simple, One-Step Approach to Durable and Robust Superhydrophobic Textiles, *Adv. Funct. Mat.*, 18(22), 3662-3669.