

DAFTAR PUSTAKA

www.itk.ac.id

- Altman, G. H., Diaz, F., Jakuba, C., Calabro, T., Horan, R. L., Chen, J., dan Kaplan, D. L. (2003). Silk-based biomaterials. *Biomaterials*, 24(3), 401-416.
- Anam, C., Firdausi, K. S., dan Sirojudin, S. (2007). Analisis gugus fungsi pada sampel uji, bensin dan spiritus menggunakan metode spektroskopi FTIR. *Berkala Fisika*, 10(1), 79-85.
- Ashtikar, S. V., dan Parkhi, A. D. (2014). Adsorption of Copper from Aqueous Solution Using Mango Seed Powder. *Journal of Engineering Research and Applications*, 4, 75-77.
- Bhatnagar, A., Sillanpää, M., dan Witek-Krowiak, A. (2015). Agricultural waste peels as versatile biomass for water purification—A review. *Chemical Engineering Journal*, 270, 244-271.
- Castellan, G. W. (1983). Photophysical Processes: Fluorescence and Phosphorescence. *Physical Chemistry* 3rd Edition, Addison-Wesley Publishing Company, Inc., Reading, MA, 891-896.
- Campagnolo, L., Morselli, D., Magri, D., Scarpellini, A., Demirci, C., Colombo, M., dan Fragouli, D. (2019). silk fibroin/orange peel foam: an efficient biocomposite for water remediation. *Advanced Sustainable Systems*, 3(1), 1800097.
- Chadir, Z., Furqani, F., Zein, R., dan Munaf, E. (2015). Utilization of *Annona muricata* L. seeds as potential adsorbents for the removal of rhodamine B from aqueous solution. *J. Chem. Pharm. Res*, 7, 879-888.
- Chakraborty, S., Chowdhury, S., dan Saha, P. D. (2011). Adsorption of crystal violet from aqueous solution onto NaOH-modified rice husk. *Carbohydrate Polymers*, 86(4), 1533-1541.
- Chang, S. K., Zainal, Z., dan Abdullah, A. H. (2008). Removal of cationic and anionic dyes by immobilised titanium dioxide loaded activated carbon. *Malaysian Journal of Analytical Sciences*, 12(2), 451-457.
- Chen, F., Porter, D., dan Vollrath, F. (2012). Silk cocoon (*Bombyx mori*): multi-layer structure and mechanical properties. *Acta Biomaterialia*, 8(7), 2620-2627.

- Churchman, G. J., Gates, W. P., Theng, B. K. G., dan Yuan, G. (2006). .1 clays and clay minerals for pollution control. *Developments in clay science*, 1, 625-675.
- Chung, D. D. (2010). Composite materials: science and applications. Springer Science dan Business Media.
- Comsol. (2018). Introducing The Composite Material Module. [online] tersedia di <https://www.comsol.com/blogs/introducing-the-composite-materials-module/> [diakses pada tanggal 1 Januari 2020]
- Darma, G. C. E. (2015). Pembentukan Spontan Kompleks Polielektrolit Fibroin Sutera dengan Alginat Sebagai Model Penghantaran Obat.
- Deborah, D. C. (2010). Composite materials: science and applications. *Engineering Materials and Processes*.
- De Bari, M. K., dan Abbott, R. D. (2019). Microscopic considerations for optimizing silk biomaterials. *Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology*, 11(2), e1534.
- De Gisi, S., Lofrano, G., Grassi, M., dan Notarnicola, M. (2016). Characteristics and adsorption capacities of low-cost sorbents for wastewater treatment: A review. *Sustainable Materials and Technologies*, 9, 10-40.
- El Marouani, M., Azoulay, K., Bencheikh, I., El Fakir, L., Rghioui, L., El Hajji, A., dan Kifani-Sahban, F. (2018). Application of raw and roasted date seeds for dyes removal from aqueous solution.
- Fatimah I. (2014). Adsorpsi dan Katalis Menggunakan Material Berbasis Clay. Graha Ilmu: Yogyakarta.
- Farooq, M. U. (2013). Separation of heavy metals from water using fibroin as adsorbent.
- Godiya, C. B., Cheng, X., Deng, G., Li, D., dan Lu, X. (2019). Silk fibroin/polyethylenimine functional hydrogel for metal ion adsorption and upcycling utilization. *Journal of Environmental Chemical Engineering*, 7(1), 102806.
- Guido Busca. (2014). Heterogeneous Catalytic Materials: Solid State Chemistry, Surface Chemistry and Catalytic Behaviour. Elsevier.

- Gulrajani, M. L., Brahma, K. P., Kumar, P. S., dan Purwar, R. (2008). Application of silk sericin to polyester fabric. *Journal of applied polymer science*, 109(1), 314-321.
- Handayani, M., dan Sulistiyono, E. (2009). Uji Persamaan Langmuir dan Freundlich pada Penyerapan Limbah Chrom (VI) oleh Zeolit. Bandung, PTNBR-BATAN Bandung, 130-136.
- Hikmawati, D. I. (2018). Studi Perbandingan Kinerja Serbuk dan Arang Biji Salak Pondoh (*Salacca zalacca*) pada Adsorpsi Metilen Biru. *Chimica et Natura Acta*, 6(2), 85-92.
- Hotze, E. M., Phenrat, T., dan Lowry, G. V. (2010). Nanoparticle aggregation: challenges to understanding transport and reactivity in the environment. *Journal of environmental quality*, 39(6), 1909-1924.
- Jankowska, H., Świątkowski, A., dan Choma, J. (1991). Active carbon. Ellis Horwood Ltd.
- Kumar, R., dan Ahmad, R. (2011). Biosorption of hazardous crystal violet dye from aqueous solution onto treated ginger waste (TGW). *Desalination*, 265(1-3), 112-118.
- Kooh, M. R. R., Dahri, M. K., dan Lim, L. B. (2016). Jackfruit seed as a sustainable adsorbent for the removal of Rhodamine B dye. *Journal of Environment and Biotechnology Research*, 4(1), 7-16.
- Le, T. T., Park, Y., Chirila, T. V., Halley, P. J., dan Whittaker, A. K. (2008). The behavior of aged regenerated *Bombyx mori* silk fibroin solutions studied by ¹H NMR and rheology. *Biomaterials*, 29(32), 4268-4274.
- Magrì, D., Caputo, G., Perotto, G., Scarpellini, A., Colusso, E., Drago, F., dan Fragouli, D. (2018). Titanate fibroin nanocomposites: a novel approach for the removal of heavy-metal ions from water. *ACS applied materials dan interfaces*, 10 (1), 651-659.
- Malay, Ö. (2005). Formation and characterization of silk fibroin/hyaluronic acid complexes and their use in iontophoretic drug delivery (Master's thesis, İzmir Institute of Technology).
- Mondal, M., Trivedy, K., dan Nirmal, K. S. (2007). The silk proteins, sericin and fibroin in silkworm, *Bombyx mori* Linn.,-a review.

- Oboh, O. I., dan Aluyor, E. O. (2008). The removal of heavy metal ions from aqueous solutions using sour sop seeds as biosorbent. African Journal of Biotechnology, 7(24).
- Pang, X., Sellaoui, L., Franco, D., Netto, M. S., Georgin, J., Dotto, G. L., dan Li, Z. (2020). Preparation and characterization of a novel mountain soursop seeds powder adsorbent and its application for the removal of crystal violet and methylene blue from aqueous solutions. Chemical Engineering Journal, 391, 123617.
- Qi, Y., Wang, H., Wei, K., Yang, Y., Zheng, R. Y., Kim, I. S., dan Zhang, K. Q. (2017). A review of structure construction of silk fibroin biomaterials from single structures to multi-level structures. International journal of molecular sciences, 18(3), 237.
- Qiu, H., Lv, L., Pan, B. C., Zhang, Q. J., Zhang, W. M., dan Zhang, Q. X. (2009). Critical review in adsorption kinetic models. Journal of Zhejiang University-Science A, 10(5), 716-724.
- Radyawati. (2011). Pembuatan biocharcoal dari kulit pisang kepok untuk penyerapan logam timbal (Pb) dan logam seng (Zn). Skripsi. Palu: Universitas Tadulako.
- Ramya, R., dan Sudha, P. N. (2013). Adsorption of cadmium (II) and copper (II) ions from aqueous solution using chitosan composite. Polymer composites, 34(2), 233-240.
- Saeed, A., Sharif, M., dan Iqbal, M. (2010). Application potential of grapefruit peel as dye sorbent: kinetics, equilibrium and mechanism of crystal violet adsorption. Journal of hazardous materials, 179(1-3), 564-572.
- Sah, M. K., dan Pramanik, K. (2010). Regenerated silk fibroin from *B. mori* silkcocoon for tissue engineering applications. International journal of environmental science and development, 1(5), 404.
- Saragih, S. A. (2008). Pembuatan dan karakterisasi karbon aktif dari batubara RIau sebagai adsorben (Doctoral dissertation, Universitas Indonesia. Fakultas Teknik).
- Schwartz, M. M. (1983). Composite materials handbook. Mc-Graw Hill Book.

- Scopelliti, P. E., Borgonovo, A., Indrieri, M., Giorgetti, L., Bongiorno, G., Carbone, R., dan Milani, P. (2010). The effect of surface nanometre-scale morphology on protein adsorption. *PloS one*, 5(7).
- Sulian, Andri. (2008), Pengaruh Komposisi Matriks Partikel dan Jenis Resin Terhadap Sifat Mekanik Komposit Yang Diperkuat Serbuk Tempurung Kemiri, UNILA.
- Song, P., Zhang, D. Y., Yao, X. H., Feng, F., dan Wu, G. H. (2017). Preparation of a regenerated silk fibroin film and its adsorbability to azo dyes. *International journal of biological macromolecules*, 102, 1066-1072.
- Tan, K. H., dan Goenadi, I. D. H. (1991). Dasar-dasar kimia tanah. Gadjah Mada University Press.
- Vepari, C., dan Kaplan, D. L. (2007). Silk as a biomaterial. *Progress in polymer science*, 32(8-9), 991-1007.
- Wahab, N., Saeed, M., Ibrahim, M., Munir, A., Saleem, M., Zahra, M., dan Waseem, A. (2019). Synthesis, Characterization, and Applications of Silk/Bentonite Clay Composite for Heavy Metal Removal From Aqueous Solution. *Frontiers in chemistry*, 7.
- Weber, T. W., dan Chakravorti, R. K. (1974). Pore and solid diffusion models for fixed-bed adsorbers. *AICHE Journal*, 20(2), 228-238.
- Werth, J. H., Dammer, S. M., Farkas, Z., Hinrichsen, H., dan Wolf, D. E. (2002). Agglomeration in charged suspensions. *Computer physics communications*, 147(1-2), 259-262.
- West, A. R. (1999). Basic solid state chemistry. John Wiley and Sons Incorporated.
- Wicaksono, I. 2012. Penyisihan logam krom dari limbah cair penyamakan kulit menggunakan Electric Arc Furnace Slag (EAFS). Tesis Program Studi Teknik Lingkungan. Institut Teknologi Bandung. Bandung
- Zhou, J. (2011). Amide proton transfer imaging of the human brain. In *Magnetic Resonance Neuroimaging* (pp. 227-237). Humana Press.
- Zustriani, A. K. (2019). Pengaruh Aktivasi Adsorben Biji Pepaya Terhadap Adsorpsiion Logam Besi (Fe) Dan Tembaga (Cu) Dalam Air Limbah. *Integrated Lab Journal*, 7(1), 29-43.