

DAFTAR PUSTAKA

- (1) Golam Mustafa, M.; Sarker, B. S.; Hossain, Seasonal Variation and Ecological Risk Assessment for Heavy Metals in Sediment from the Feni River Estuary, Bangladesh View Project Thermal Effects on Red-Spotted Grouper View Project. *Journal of Agricultural Research*. 2016, 10, 28-37.
- (2) He, Z. L.; Yang, X. E.; Stoffella, P. J. Trace Elements in Agroecosystems and Impacts on the Environment. *Journal of Trace Elements in Medicine and Biology*. 2005, pp 125–140.
- (3) Järup, L. Hazards of Heavy Metal Contamination. *British Medical Bulletin*. 2003, pp 167–182.
- (4) Fisseha Itanna. Metals in Leafy Vegetables Grown in Addis Ababa and Toxicological Implications. *Ethiop. J. Health Dev.* 2002, 16, 295–302.
- (5) Ahluwalia, S. S.; Goyal, D. Microbial and Plant Derived Biomass for Removal of Heavy Metals from Wastewater. *Bioresource Technology*. 2007, pp 2243–2257.
- (6) Balci, B.; Keskinan, O.; Avci, M. Use of BDST and an ANN Model for Prediction of Dye Adsorption Efficiency of Eucalyptus Camaldulensis Barks in Fixed-Bed System. *Expert Syst Appl* 2011, 38 (1), 949–956.
- (7) B. Velosky and Z.R Holan. Biosorption of Heavy Metals. *American Chemical Society and American Institute of Chemical Engineers*. 1995, 11, 235–250.
- (8) Ahalya, N.; Ramachandra, T. V; Kanamadi, R. D.. Biosorption of Heavy Metals . *Research Journal Of Chemistry And Environment*. 2003. 7, 71-78
- (9) Sudaryanto, Y.; Hartono, S. B.; Irawaty, W.; Hindarso, H.; Ismadji, S. High Surface Area Activated Carbon Prepared from Cassava Peel by Chemical Activation. *Bioresour Technol*. 2006, 97 (5), 734–739.
- (10) Rahmawati; Agus Siswoyo, T.; Puji Restanto, D.; Hartatik, S.; Soeparjono, S.; Avivi, S. Biology Morphological and Physiological Characters of Cassava (Manihot Esculenta Crantz) Which Wet Tolerant Morphological and Physiological Characters of Cassava (Manihot Esculenta Crantz) Which Wet Tolerant. *IBSC*, 2017, 32-35.
- (11) Sivakumar, S.; Senthilkumar, P.; Subburam, V. Carbon from Cassava Peel, an Agricultural Waste, as an Adsorbent in the Removal of Dyes and Metal Ions from Aqueous. *Solution.Biosource Technology*. 2001, 233-235.
- (12) Cuzin, N.; Labat, M. Reduction of Cyanide Levels during Anaerobic Digestion of Cassava. *International Journal of Food Science and Technology*. 1992; Vol. 27, 329-336
- (13) Chen, Y.; Wang, H.; Zhao, W.; Huang, S. Four Different Kinds of Peels as Adsorbents for the Removal of Cd (II) from Aqueous Solution: Kinetics, Isotherm and Mechanism. *J Taiwan Inst Chem Eng*. 2018, 88, 146–151.
- (14) Saranya, N.; Ajmani, A.; Sivasubramanian, V.; Selvaraju, N. Hexavalent Chromium Removal from Simulated and Real Effluents Using Artocarpus Heterophyllus Peel Biosorbent - Batch and Continuous Studies. *J Mol Liq* 2018, 265, 779–790.

- (15) Mo, W.; Po, O.; Mk, S.; En, M. Assessment of Cyanide Concentrations in Cassava Peels Obtained at Different Levels of Processing for Resource Reuse. *Journal Of Waste Management and Reprocessing*. 2021. 3, 1-10
- (16) Zein, R.; Ramadhani, P.; Aziz, H.; Suhaili, R. Biosorben Cangkang Pensi (*Corbicula Moltkiana*) Sebagai Penyerap Zat Warna Metanil Yellow Ditinjau Dari PH Dan Model Kesetimbangan Adsorpsi Pensi Shell (*Corbicula Moltkiana*) as a Biosorbent for Metanil Yellow Dyes Removal: PH and Equilibrium Model Evaluation. *Jurnal Litbang Industri*. 2019 9, 15-22.
- (17) Allem, A. C. The Origins and Taxonomy of Cassava; 2002. 1, 1-16
- (18) Widiarto, S.; Pramono, E.; Suharso; Rochliadi, A.; Arcana, I. M. Cellulose Nanofibers Preparation from Cassava Peels via Mechanical Disruption. *Fibers* 2019, 7 (5). 1-11
- (19) Menteri Kesehatan Indonesia. PERMENKES 416 TAHUN 1990 Syarat & Pengawasan Kualitas Air; 1990.
- (20) Farooq, U.; Kozinski, J. A.; Khan, M. A.; Athar, M. Biosorption of Heavy Metal Ions Using Wheat Based Biosorbents - A Review of the Recent Literature. *Bioresource Technology*. July 2010, pp 5043–5053.
- (21) Fiyadh, S. S.; Alsaadi, M. A.; AlOmar, M. K.; Fayaed, S. S.; Hama, A. R.; Bee, S.; El-Shafie, A. The Modelling of Lead Removal from Water by Deep Eutectic Solvents Functionalized CNTs: Artificial Neural Network (ANN) Approach. *Water Science and Technology* 2017, 76 (9), 2413–2426.
- (22) Rasoulzadeh, H.; Dehghani, M. H.; Mohammadi, A. S.; Karri, R. R.; Nabizadeh, R.; Nazmara, S.; Kim, K. H.; Sahu, J. N. Parametric Modelling of Pb(II) Adsorption onto Chitosan-Coated Fe₃O₄ Particles through RSM and DE Hybrid Evolutionary Optimization Framework. *J Mol Liq* 2020, 297.
- (23) Wang, Y.; Zhao, G.; Zhang, Q.; Wang, H.; Zhang, Y.; Cao, W.; Zhang, N.; Du, B.; Wei, Q. Electrochemical Aptasensor Based on Gold Modified Graphene Nanocomposite with Different Morphologies for Ultrasensitive Detection of Pb²⁺. *Sens Actuators B Chem* 2019, 288, 325–331.
- (24) Vuković, G. D.; Marinković, A. D.; Škapin, S. D.; Ristić, M. T.; Aleksić, R.; Perić-Grujić, A. A.; Uskoković, P. S. Removal of Lead from Water by Amino Modified Multi-Walled Carbon Nanotubes. *Chemical Engineering Journal* 2011, 173 (3), 855–865.
- (25) Rahman, M. U.; Gul, S.; Zahoor Haq, M. U. Reduction of Chromium(VI) by Locally Isolated *Pseudomonas* Sp. C-171. *Turkish Journal of Biology* 2007. 161-166.
- (26) Royal Society of Chemistry. Chromium.
- (27) Kimbrough, D. E.; Cohen, Y.; Winer, A. M.; Creelman, L.; Mabuni, C. A Critical Assessment of Chromium in the Environment. *Critical Reviews in Environmental Science and Technology*. 1999, pp 1–46.
- (28) Yoshinaga, M.; Ninomiya, H.; Al Hossain, M. M. A.; Sudo, M.; Akhand, A. A.; Ahsan, N.; Alim, M. A.; Khalequzzaman, M.; Iida, M.; Yajima, I.; Ohgami, N.; Kato, M. A Comprehensive Study Including Monitoring, Assessment of Health Effects

and Development of a Remediation Method for Chromium Pollution. *Chemosphere* 2018, 201, 667–675.

- (29) Fourest, E.; Roux, J.-C. Biotechnology Heavy Metal Biosorption by Fungal Mycelial By-Products: Mechanisms and Influence of PH. *Appl Microbiol Biotechnol* 1992; 37, 399-403.
- (30) Kratochvil, D.; Volesky, B. BIOSORPTION OF Cu FROM FERRUGINOUS WASTEWATER BY ALGAL BIOMASS. *Wat. Res.* 1998, 32, 2760-2768.
- (31) Feng, N.; Guo, X.; Liang, S.; Zhu, Y.; Liu, J. Biosorption of Heavy Metals from Aqueous Solutions by Chemically Modified Orange Peel. *J Hazard Mater* 2011, 185 (1), 49–54.
- (32) Irving Langmuir. CONSTITUTION OF SOLIDS AND LIQUIDS. *Journal of the Franklin Institute.* 1916. 138. 2221-2295
- (33) Freundlich, U. Freundlich Equation “Die Adsorption in Lösungen”; *Zeitschrift für Physikalische Chemie.* 1906, 385-470.
- (34) Wang, J.; Chen, C. Biosorbents for Heavy Metals Removal and Their Future. *Biotechnology Advances.* March 2009, pp 195–226.
- (35) Abbaszadeh, S.; Wan Alwi, S. R.; Webb, C.; Ghasemi, N.; Muhamad, I. I. Treatment of Lead-Contaminated Water Using Activated Carbon Adsorbent from Locally Available Papaya Peel Biowaste. *J Clean Prod* 2016, 118, 210–222.
- (36) Ali, R. M.; Hamad, H. A.; Hussein, M. M.; Malash, G. F. Potential of Using Green Adsorbent of Heavy Metal Removal from Aqueous Solutions: Adsorption Kinetics, Isotherm, Thermodynamic, Mechanism and Economic Analysis. *Ecol Eng* 2016, 91, 317–332.
- (37) Jaihan, W.; Mohdee, V.; Sanongraj, S.; Pancharoen, U.; Nootong, K. Biosorption of Lead (II) from Aqueous Solution Using Cellulose-Based Bio-Adsorbents Prepared from Unripe Papaya (*Carica Papaya*) Peel Waste: Removal Efficiency, Thermodynamics, Kinetics and Isotherm Analysis: Biosorption of Lead (II) from Aqueous Solution Using Cellulose-Based Bio-Adsorbents. *Arabian Journal of Chemistry* 2022, 15 (7), 1-14.
- (38) Beaty, R. D.; Kerber, J. D. Concepts, Instrumentation and Techniques in Atomic Absorption Spectrophotometry Second Edition THE PERKIN-ELMER CORPORATION; 1993, 1-96
- (39) Shreed Passad. Use of Humic Acid in Agriculture, 2015, 1, 40-44.
- (40) Fan, M.; Dai, D.; Huang, B. 3 Fourier Transform Infrared Spectroscopy for Natural Fibres; 2012. 44-68.
- (41) Coates, J. *Interpretation of Infrared Spectra, A Practical Approach*; 2000, 10815 – 10837.
- (42) Paredes, A. M. Microscopy: Scanning Electron Microscopy. In *Encyclopedia of Food Microbiology: Second Edition*; Elsevier Inc., 2014; pp 693–701.
- (43) Tsuji, K. X-Ray Fluorescence and Emission | X-Ray Fluorescence Theory. In *Encyclopedia of Analytical Science*; Elsevier, 2019; pp 471–481.

- (44) Menczel, J. D. Thermogravimetric Analysis of Fibers. In *Thermal Analysis of Textiles and Fibers*; Elsevier, 2020; pp 71–79.
- (45) Mohan, C.; Diego, S. Calbiochem® A Guide for the Preparation and Use of Buffers in Biological Systems; 2003. 18-21.
- (46) Mohd-Asharuddin, S.; Othman, N.; Mohd Zin, N. S.; Tajarudin, H. A. A Chemical and Morphological Study of Cassava Peel: A Potential Waste as Coagulant Aid. In *MATEC Web of Conferences*; EDP Sciences, 2017, 103, 1-8.
- (47) Hevira, L.; Zilfa; Rahmayeni; Ighalo, J. O.; Zein, R. Biosorption of Indigo Carmine from Aqueous Solution by Terminalia Catappa Shell. *J Environ Chem Eng* 2020, 8 (5), 1-11.
- (48) Ramadhani, P.; Chaidir, Z.; Zilfa; Tomi, Z. B.; Rahmiarti, D.; Zein, R. Shrimp Shell (*Metapenaeus Monoceros*) Waste as a Low-Cost Adsorbent for Metanil Yellow Dye Removal in Aqueous Solution. *Desalination Water Treat* 2020, 197, 413–423.
- (49) Zein, R.; Wardana, N.; Refilda, R.; Aziz, H. Kulit Salak Sebagai Biosorben Potensial Untuk Pengolahan Timbal(II) Dan Cadmium(II) Dalam Larutan. *Chimica et Natura Acta* 2018, 6 (2), 56-64.
- (50) Fauzia, S.; Aziz, H.; Dahlan, D.; Zein, R. Modelling for Removal of Cr(vi) and Pb(ii) Using Sago Bark (*Metroxylon Sagu*) by Fixed-Bed Column Method. *Egypt J Chem* 2021, 64 (8), 3981–3989.
- (51) Putra, A.; Fauzia, S.; Deswati; Arief, S.; Zein, R. Preparation, Characterization, and Adsorption Performance of Activated Rice Straw as a Bioadsorbent for Cr(VI) Removal from Aqueous Solution Using a Batch Method. *Desalination Water Treat* 2022, 264, 121–132.
- (52) Lestari, I.; Prasetyo, W.; Lasmana Tarigan, I.; Permana, E. Adsorption Of Cr(VI) Ions Using Sugar Palm Fruit Peel (*Arenga Pinnata*) Immobilized in Ca-Alginate Bead. *Jurnal Rekayasa Kimia & Lingkungan* 2022, 17 (1), 35–43.
- (53) Fauzia, S.; Aziz, H.; Dahlan, D.; Zein, R. Study of Equilibrium, Kinetic and Thermodynamic for Removal of Pb(II) in Aqueous Solution Using Sago Bark (*Metroxylon Sagu*). In *AIP Conference Proceedings*; American Institute of Physics Inc., 2018, 2023, 1-8
- (54) Dehghani, M. H.; Sanaei, D.; Ali, I.; Bhatnagar, A. Removal of Chromium(VI) from Aqueous Solution Using Treated Waste Newspaper as a Low-Cost Adsorbent: Kinetic Modeling and Isotherm Studies. *J Mol Liq* 2016, 215, 671–679.
- (55) Yaroshevsky, A. A. Abundances of Chemical Elements in the Earth's Crust. *Geochemistry International* 2006, 44 (1), 48–55.
- (56) Wu, Y.; Fan, Y.; Zhang, M.; Ming, Z.; Yang, S.; Arkin, A.; Fang, P. Functionalized Agricultural Biomass as a Low-Cost Adsorbent: Utilization of Rice Straw Incorporated with Amine Groups for the Adsorption of Cr(VI) and Ni(II) from Single and Binary Systems. *Biochem Eng J* 2016, 105, 27–35.
- (57) Pathak, P. D.; Mandavgane, S. A.; Kulkarni, B. D. Characterizing Fruit and Vegetable Peels as Bioadsorbents. *Curr Sci* 2016, 110 (11), 2114–2123.