

DAFTAR PUSTAKA

- (1) Jain, C. K.; Singhal, D. C.; Sharma, M. K. Adsorption of Zinc on Bed Sediment of River Hindon: Adsorption Models and Kinetics. *Journal Hazard Mater.* **2004**, *114* (1–3), 231–239.
- (2) Roberts, A.; O'Brien, E.; Retnowati, S. Keracunan Timbal Di Indonesia. In *The Gobal Lead Advice and Supprot Service (GLASS)*; 2010; pp 1–19.
- (3) Shofiyani, A.; Gusrizal. Pengaruh PH Dan Penentuan Kapasitas Adsorpsi Logam Berat Pada Biomassa Eceng Gondok (*Eichhornia Crassipes*). *Indonesian Journal Chemistry.* **2006**, *6* (1), 56–60.
- (4) Ika, I.; Tahril, T.; Said, I. Analisis Logam Timbal (Pb) Dan Besi (Fe) Dalam Air Laut Di Wilayah Pesisir Pelabuhan Ferry Taipa Kecamatan Palu Utara (The Analysis of Lead (Pb) and Iron (Fe) Metals In The Sea Water of Coastal Area of Taipaâs Ferry Harbor Subdistrict of North Palu). *Jurnal Akademik Kimia.* **2012**, *1* (4), 224069.
- (5) Setiawan, H. Akumulasi Dan Distribusi Logam Berat Pada Vegetasi Mangrove Di Pesisir Sulawesi Selatan. *Jurnal Ilmu Kehutanan.* **2015**, *7* (1), 12–24.
- (6) Suhud, I.; Tiwow, V.; Hamzah, B. Adsorpsi Ion Kadmium(Ii) Dari Larutannya Menggunakan Biomassa Akar Dan Batang Kangkung Air (*Ipomoea Aquatica Forks*) (Adsorption of Cadmium(II) Ion from Its Solution by Using Biomass of Roots and Stemsâ Water Spinach (*Ipomoea Aquatic Forsk*)). *Jurnal Akademik Kimia.* **2012**, *1* (4), 224182.
- (7) Samar, M.; Saxena, S. Study of Chemical and Physical Properties of Perlite and Its Application in India. *International Journal of Sciences and Management.* **2016**, *5* (4), 70–80.
- (8) Munaf, E.; Suhaili, R.; Anwar, Y.; Zein, I.; Zein, R. Dynamic Removal of Toxic Metals from Wastewater Using Perlite as Sorbent. *Asian Journal Chemistry.* **2009**, *21* (3), 2059–2066.
- (9) Primasari, B.; Gustilisa, R. Studi Kemampuan Perlit sebagai Adsorben untuk Menyisihkan Besi. **1985**, 44–50.
- (10) Sari, dkk. 2011. Pembuatan Panel Beton Berbasis Perlit Dan Aplikasinya Sebagai Insulator Panas. *Jurnal Ilmu Pengetahuan dan Teknologi.* **2011**, *Volume 29*, Hal 1-7.
- (11) Wang, P.; Shen, B.; Gao, J. Synthesis of ZSM-5 Zeolite from Expanded Perlite and Its Catalytic Performance in FCC Gasoline Aromatization. *Catalysis Today* **2007**, *125* (3–4), 155–162.
- (12) Ali, J. C. Pembuatan Panel Beton Ringan Berbasis Perlit Dan Efek Komposisi Terhadap Karakteristiknya, Universitas Sumatera Utara (USU), 2009.
- (13) A.Chakir, J. Bessiere, K. E. K. and B. M. A Comparative Study of the Removal of Trivalent Chromium from Aqueous Solutions by Bentonite and Expanded Perlite. *Journal Hazard Mater* **2002**, *95*, 29.
- (14) Tarmidzi, F. M.; Anindita, M.; Putri, S.; Novi, A.; Alviany, R. Pengaruh Aktivator

Asam Sulfat Dan Natrium Klorida Pada Karbon Aktif Batang Semu Pisang Untuk Adsorpsi Fe. **2021**, 5 (1), 17–21.

- (15) Mu'jizah, S. Pembuatan Dan Karakterisasi Karbon Aktif Dari Biji Kelor (*Moringa Oleifera*. Lamk) Dengan NaCl Sebagai Bahan Pengaktif, Universitas Islam Negeri Maulana Malik Ibrahim Malang, 2010.
- (16) Sunarsih, S., S. Hastutiningrum, dan T. D. N. Activated Carbon from Jackfruit Peel Waste as Decolouring Agent of Screen Printing Waste Water. In *Prosiding Seminar Nasional Teknik Kimia "Kejuangan". Pengembangan Teknologi Kimia untuk Pengolahan Sumber Daya Alam Indonesia*; Yogyakarta, 2016.
- (17) Akin-öktem, G.; Tincer, T. Preparation and Characterization of Perlite-filled High-density Polyethylenes. I. Mechanical Properties. *Journal of Applied Polymer Science*. **1994**, 54 (8), 1103–1114.
- (18) Aktaş, P. F. Ç. D. Ö. *Activated Carbon for Water and Wastewater Treatment*; 2012.
- (19) Khopkar. *Konsep Dasar Kimia Analitik*; Universitas Indonesia: Jakarta. 1991
- (20) Bernasconi, G. *Teknologi Kimia*; PT Pradnya Paramita: Jakarta, 1995.
- (21) Bahl, B.S.; Tuli, G.D, Bahl, A. *Essentials of Physical Chemistry*; S. Chand & Company Ltd: New delhi, 2004.
- (22) Ernawati. Kerang Bulu (*Anadara Inflata*) Sebagai Bioindikator Pencemaran Logam Berat Timbale (Pb) Dan Cadmium(Cd) Di Muara Sungai Asahan, Universitas Sumatera Utara, 2010.
- (23) Jaibet J. Analisis Logam Berat Cd, Cu Dan Pb Dalam Sedimen Dan Air Laut Di Teluk Salut Tuaran, Sekolah Sains dan Teknologi Universiti Malaysia Sabah, 2007.
- (24) Palar. H. *Pencemaran Dan Toksikologi Logam Berat*; Rineka Cipta: Jakarta, 1994.
- (25) Çeribas, I. H.; Yetis, U. Biosorption of Ni(II) and Pb(II) by *Phanerochaete Chrysosporium* from a Binary Metal System - Kinetics. *Water SA* **2001**, 27 (1), 15–20.
- (26) Notohadiprawiro, T. *Tanah Dan Lingkungan*; Direktorat Jendral Pendidikan Tinggi Departemen Pendidikan dan Kebudayaan: Jakarta, 1999.
- (27) Parulian, A. Monitoring Dan Analisis Kadar Aluminium (Al) Dan Besi (Fe) Pada Pengolahan Air Minum PDAM Tirtanadi Sunggal., Universitas Sumatera Utara, 2009.
- (28) Karim, M. A.; Juniar, H.; Ambarsari, M. F. P. Adsorpsi Ion Logam Fe Dalam Limbah Tekstil Sintesis Dengan Menggunakan Metode Batch. *Jurnal Distilasi* **2018**, 2 (2), 68.
- (29) Hossain, M. A., Ngo, H. H., Guo, W. S., Nguyen, T. V. Palm Oil Fruit Shells as Biosorbent for Copper Removal from Water and Wastewater: Experiments and Sorption Models. *Journal of Bioresource Technology*. **2012**, 113, 97–101.
- (30) Zangina, T.; Saadu, I. Atomic Absorption Spectroscopy Analysis of Heavy Metals

in Water At Mai-Ganga Coal. *Journal of Sciences*. **2019**, 3 (4), 497–500.

- (31) Khandaker, S.; Kuba, T.; Kamida, S.; Uchikawa, Y. Adsorption of Cesium from Aqueous Solution by Raw and Concentrated Nitric Acid-Modified Bamboo Charcoal. *Journal of Environmental Chemical Engineering. Eng.* **2017**, 5 (2), 1456–1464.
- (32) O, T. F. Adsorpsi Ion Cu (II) Menggunakan Pasir Laut Teraktivasi H₂so₄ Dan Tersalut Fe₂o₃. *J. MIPA Unnes* **2014**, 37 (1), 114378.
- (33) Imelda, D.; Khanza, A.; Wulandari, D. Pengaruh Ukuran Partikel Dan Suhu Terhadap Penyerapan Logam Tembaga (Cu) Dengan Arang Aktif Dari Kulit Pisang Kepok (Musa Paradisiaca Formatypica). *Jurnal Teknologi*. **2019**, 6 (2), 107–118.
- (34) Mushtaq, M.; Bhatti, H. N.; Iqbal, M.; Noreen, S. Eriobotrya Japonica Seed Biocomposite Efficiency for Copper Adsorption: Isotherms, Kinetics, Thermodynamic and Desorption Studies. *Journal of Environmental Management*. **2016**, 176, 21–33.
- (35) Zou, W., Bai, H., Gao, S. & Li, K. Characterization of Modified Sawdust, Kinetic and Equilibrium Study about Methylene Blue Adsorption in Batch Mode. *Korean Journal Chemistry Engineering*. **2013**, 30, 111–122.
- (36) sharma, Y. C., Uma, & Upadhyay, S. N. Removal of a Cationic Dye from Wastewater by Adsorption on Activated Carbon Developed from Coconut Coir. *energy and fuels* **2009**, 23, 2983–2988.
- (37) Mathialagan, T.; Viraraghavan, T. Adsorption of Cadmium from Aqueous Solutions by Perlite. *Journal Hazard Mater*. **2002**, 94 (3), 291–303.
- (38) Grundl, T.; Delwiche, J. Kinetics of Ferric Oxyhydroxide Precipitation. *Journal of Contaminant Hydrology*. **1993**, 14 (1), 71–87.
- (39) Wahyuni, S.; Ningsih, P.; Ratman, R. Pemanfaatan Arang Aktif Biji Kapuk (Ceiba Pentandra L.) Sebagai Adsorben Logam Timbal (Pb). *Jurnal Akadenik Kimia*. **2017**, 5 (4), 191.
- (40) Barros Júnior, L. M.; Macedo, G. R.; Duarte, M. M. L.; Silva, E. P.; Lobato, A. K. C. L. Biosorption of Cadmium Using the Fungus *Aspergillus Niger*. *Brazilian Journal of Chemical Engineering*. **2003**, 20 (3), 229–239.
- (41) Mahvi, A. H.; Naghipour, D.; Vaezi, F.; Nazmara, S. Teawaste as An Adsorbent for Heavy Metal Removal from Industrial Wastewaters. *Am. Journal of Applied Polymer Science*. **2005**, 2 (1), 372–375.
- (42) Mahir Alkan, M. D. Adsorption of Copper(II) onto Perlite. *Journal Colloid Interface Sciences*. **2001**, 243, 280–291.