



DAFTAR PUSTAKA

- Abdel-Fattah, T.M., M.E. Mahmoud, M.M. Osman and S.B. Ahmed. 2014. Magneticallay active biosorbent for chromium species removal from aqueous media. *Journal of Environmental Sciencon and Health, Part A* 49: 1064-1076.
- Achal, V., D. Kumari and X. Pan. 2011. Bioremediation chromium contaminated soil by a Brown-Rot Fungus, *Gloeophyllum sepiarium*. *Research Journal of Microbiology* 6 (2): 166-171.
- Akissi, L.C. Koffi. K. Adouby, E.N. Wandan, B. Yai and K.P. Kotchi. 2010. Sorption and desorption of Pb(II) from aqueous solution using *Triplochiton scleroxylon* sawdust as sorbent. *Journal of Applied Sciences* 10(15): 1536-1544.
- Alam, M.Z. 2004. Biosorption of basic dyes using sewage treatment plant biosolids. *Biotechnology* 3(2): 200 – 204.
- Aliza, D. Winaruddin dan L.W. Sipahutar. 2013. Efek peningkatan suhu air terhadap perubahan perilaku, patologi anatomi dan histopatologi insang Ikan Nila (*Oreochromis niloticus*). *Jurnal Medika Veterinaria* 7(2): 142 – 145.
- Al-Kadeeb, S.A. and A.H. Al-Rokban. 2011. Study of various parameters influencing the biosorption of alluminum by Actinomycetes. *Microbiology Journal* 1(6): 191 – 198.
- Andarani, P. dan D. Roosmini. 2009. Profil pencemaran logam berat (Cu, Cr dan Zn) pada air permukaan dan sedimen di sekitar Industri Tekstil PT X (Sungai Cikijing). EM-7: 1-12.
- Arbanah, M., M.R.M. Najwa and K.H. Ku-Halim. 2012. Biosorption of Cr(III), Fe(II), Cu(II), Zn(II) ions from liquid laboratory chemical waste by *Pleurotus ostreatus*. *International Journal of Biotechnology for Wellness Industries* 1(3): 152 – 162.
- Aryani, Y., Sunarto dan T. Widiyani. 2004. Toksisitas akut limbah cair pabrik batik CV. Giyant Santoso Surakarta dan efek sublethalnya terhadap struktur mikroanatomii branchia dan hepar Ikan Nila (*Oreochromis niloticus*, T.). *BioSMART* 6(2): 147-153.
- Atmani, F., A. Bensmaili and N.Y. Mezenner. 2009. Synthetic textile effluent removal by skin almonds waste. *Journal of Environmental Science and Technology* 2(4): 153 – 169.
- Awaludin, R., I. Darah, C.O. Ibrahim, and A.M. Uyub. 2001. Decolorization of commercially available synthetic dyes by the White Rot Fungus *Phanerochaete chrysosporium*. *J Fungi and Bacteria* 62: 55 – 63.



- Azmat, R., Uzma and F. Uddin. 2007. Biosorption of toxic metals from solid sewage sludge by marine green algae. *Asian Journal of Plant Sciences* 6(1): 42-45.
- Babu, E. and B. Preetha. 2014. Kinetics and equilibrium studies on biosorption of chromium (VI) by mixed biosorbents. *International Journal of ChemTech Research* 6(12): 4927-4933.
- Bertagnolli, C., M.G.C. da Silva and E. Guibal. 2014a. Chromium biosorption using the residue of alginate extraction from *Sargassum filipendula*. *Chemical Engineering Journal* 237: 362-371.
- , C., A. Uhart, J.C. Dupin, M.G.C. Silva, E. Guibal, and J. Desbrieres. 2014b. Biosorption of chromium by alginate extraction products from *Sargassum filipendula*: Investigation of adsorption mechanisms using X-ray photoelectron spectroscopy analysis. *Bioresource Technology* 164: 264-269.
- Biyik, H., F. Kalyoncu, E. Oryasin, N. Azbar, E. Kalmis and G. Basbulul. 2009. Evaluation of wild and commercial types of *Pleurotus* strains for their ability to decolorize cibacron black W-NN textile dye. *African Journal of Microbiology Research* 3(6): 325-329.
- Boky, H., J.M.L. Umboh dan B. Ratag. 2015. Perbedaan kandungan merkuri (Hg) air sumur gali berdasarkan jarak dari sumber pencemaran di Wilayah Pertambangan Rakyat Desa Tatelu I. *JIKMU* 5(1): 63-70.
- Buhani, S dan Z. Sembiring. 2006. Biosorpsi logam Pb(II), Cu(II) dan Cd(II) pada biomassa *Sargassum duplicatum* dengan matriks silika gel. *Indo. J. Chem* 6(3): 245-250.
- Chen, X.C., Y.P. Wang, Q. Lin, J.Y. Shi, W.X. Wu and Chen, Y.X. 2005. Biosorption of copper (II) and Zinc (II) from aqueous solution by *Pseudomonas putida* CZ1. *Colloids and Surfaces B: Biointerfaces* 46: 101-107.
- Chojnacka, K., and Michalak, I. 2009. Using wood and bone ash to remove metal ions from solution. *Global Next J.* 11(2): 299-307.
- Connel, D.W., and G.J. Miller. 1995. *Chemistry and Ecotoxicology of Pollution*. Diterjemahkan oleh Y. Koestoer. UI Press, Jakarta. 520 hal.
- Darmono. 2001. *Lingkungan Hidup dan Pencemarannya*. UI Press, Jakarta.
- Dewi, R.S. dan S. Lestari. 2010. Dekolorisasi limbah batik tulis menggunakan jamur indigenous hasil isolasi pada konsentrasi limbah yang berbeda. *Molekul* 5(2): 75-82.
- Dhankhar, R. and A. Hooda. 2011. Fungal biosorption- an alternative to meet the challenges of heavy metal pollution in aqueous solution. *Environmental Technology* 32(5): 467-491.



- Diantariani, N.P., I.W. Sudiarta dan N.K. Elantiani. 2008. Proses biosorpsi dan desorpsi ion Cr(VI) pada biosorben rumput laut *Eucheuma spinosum*. *Jurnal Kimia* 2(1): 45 – 52.
- Dutta, M. and J.K. Basu. 2012. Statistical optimization for the adsorption of acid fuchsin onto the surface of carbon alumina composite pellet : An application of response surface methodology. *Journal of Environmental Science and Technology* 5(1): 42-53.
- Eichenberger, B.A. and K.Y. Bert. 1998. Origin spesies and nature of selected inorganic constituents in natural waters. *Inorganic spesies*: 1-54.
- Fazli, M.M., A.R. Mesdaghinia, K. Naddafi, S. Nasseri, M. Yunesian., M.M. Assadi, S. Rezaie, and H. Hamzehei. 2010. Optimization of reactive blue 19 decolorization by *Ganoderma* sp. using response surface methodology. *Iran Journal Environmental Health Science Engineering* 7(1): 35-42.
- Febrianto, J., A.N. Kosasih, J. Sunarso, Y. Ju, N. Indraswati and S. Ismadji. 2009. Equilibrium and kinetic studies in adsorption of heavy metals using biosorbent: A summary of recent studies. *Journal of Hazardous Materials* 162: 616-645.
- Fujaya, Y. 2014. *Fisiologi Ikan*. Rineka Cipta, Jakarta.
- Gadd, G.M. 1990. Biosorption. *Chem and Ind* 13: 421-426.
- Ghasemi, F.F., S. Dobaradaran, A. Raeisi, A. Esmaili, M.J. Mohammadi, M. Keshtkar, S.G. Nasab and F. Soleimani. 2016. Data on Fe(II) Biosorption onto *Sargassum hystrix* Algae obtained from the Persian Gulf in Busherh Port, Iran. *Data in Brief* 5: 823-827.
- Gupta, V.K., A. Nayak and S. Agarwal. 2015. Bioadsorbents for remediation of heavy metals: Current status and their future prospect. *Environ. Eng. Res.* 20(1): 1-18.
- Hashim, M.A. and K.H. Chu. 2002. Biosorption of cadmium by brown, green and red seaweeds. *Chemical Engineering Journal* 97(2-3): 249-255.
- He, J. and J.P. Chen. 2014. A comprehensive review on biosorption of heavy metals by algal biomass: Materials, Performances, Chemistry and Modeling Simulation Tools. *Bioresource Technology* 160: 67-78.
- Hubbe, M.A., S.H. Hasan and J.J. Ducomte. 2011. Cellulosic substrates for removal of pollutants from aqueous system, metal ions sorption: A review. *Bioresources* 6(2): 2161-2287.
- Hughes, M.N. and R.K. Poole. 1990. *Metal and Microorganism*. Chapman and Hall, London.



Huri, E. dan Syafriadiaman. 2010. Pengaruh konsentrasi $\text{AlK}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ (aluminium potassium sulfat) terhadap perubahan bukaan operkulum dan sel jaringan insang ikan nila merah (*Oreochromis niloticus*). *Berkala Perikanan Terubuk* 38(2): 64-79

Igwe, J.C., O.F. Mbonu and A.A. Abia. 2007. Sorption kinetic intraparticle diffusion and equilibrium partitioning of azo dyes on great millet (*Andropogon sorghum*) waste biomass. *Journal of Applied Sciences* 7(19): 2840 – 2847.

Joo, J.H., K.A. Hussein and H.A. Hassan. 2011. Bacteria and fungi as alternatives for remediation of water resources polluting heavy metal. *Korean J. Soil. Sci. Fert.* 44(4): 600-614.

Junaidi dan B.P.D. Hatmanto. 2006. Analisis teknologi pengolahan limbah cair batik pada industri tekstil (Studi Kasus PT. Iskandar Indah Printing Textile Surakarta). *Jurnal Presipitasi* 1(1): 1-6.

Kadi, A. 2005. Beberapa catatan kehadiran marga *Sargassum* di perairan Indonesia. *Oseana* 30(4): 19 - 29.

Kadri, H. 2012. Hemoprotein dalam tubuh manusia. *Jurnal Kesehatan Andalas* 1(1): 22-30.

Kartikasari, T.H., S. Lestari dan R.S. Dewi. 2012. Adsorpsi Zn dan dekolorisasi limbah batik menggunakan limbah *baglog Pleurotus ostreatus* dengan sistem inkubasi dan volume limbah batik yang berbeda. *Biosfera* 29(3): 167 - 176

Khammuang, S. and R. Sarnthima. 2009. Mediator-assisted rhodamine B decolorization by *Trametes versicolor* Laccase. *Pakistan Journal of Biological Sciences* 12(8): 616 – 623.

Khoramabadi, Gh. S and R.D.C. Soltani. 2008. Evaluation of the marine algae *Gracilaria salicornia* and *Sargassum* sp. for the biosorption of Cr(VI) from Aquous Solutions. *Journal of Applied Sciences* 8(11): 2163 – 2167.

Klaassen, C.D. 2008. *Casarett and Doull's Toxicology: The Basic Science of Poison*, Seventh Edition. McGraw Hill Publisher, New York. 1331 p.

Kwak, H.W., M.K. Kim, J.Y. Lee, H. Yun, M.H. kim, Y.H. Park and K.H. Lee. 2015. Preparation of bead-type biosorbent from water-soluble *Spirulina platensis* extracts for chromium (VI) removal. *Algal Research* 7: 92-99.

Lelijfajri. 2010. Adsorpsi ion logam Cu(II) menggunakan lignin dari limbah serbuk kayu gergaji. *Jurnal Rekayasa Kimia dan Lingkungan* 7(3): 126-12

Lestari, S., Sudarmadji, S.D. Tandjung dan S.J. Santosa. 2017. Lethal Toxicity of Batik Waste Water Bio-Sorption Result in Tilapia. *Advanced Science Letter* 23: 2611-2613.



- 2016. Biosorpsi Krom Total dalam Limbah Cair Batik dengan Biosorben yang dikemas dalam Kantung Teh Celup. *Biosfera* 33(2): 71-75
- 2015. Kajian kualitas air Kali Wangan yang tercemar limbah cair batik. *Prosiding Seminar Nasional Pengelolaan Sumberdaya Alam dan Lingkungan*, p:553-556 ISBN:978-602-73313-0-3
- , S. Santoso dan D.S. Windyartini. 2010. Lead (Pb) adsorption at leachate of Gunung Tugel landfill by *Sargassum cinereum*. *Proceedings of the National Seminar on Biology* p:490-495 ISBN 978-979-16109-4-0
- , Hernayanti dan A.I. Insan. 2008. Biosorpsi krom heksavalen (Cr^{6+}) menggunakan rumput laut *Sargassum* sp. dalam skala laboratorium. *Biosfera* 25(3): 129 – 134
- Lina, E.C., Dadang, S. Manuwoto dan G. Syahbirin. 2015. Gangguan fisiologi dan biokimia *Crocidolomia pavonana* (F.) (Lepidoptera: Crambidae) akibat perlakuan ekstrak campuran *Tephrosia vogelli* dan *Piper aduncum*. *Jurnal Entomologi Indonesia* 12(2): 100-107
- Loomis, T.A. 1978. *Toksikologi Dasar*. Edisi ketiga (diterjemahkan oleh Imono, A.D). Semarang: IKIP Press Semarang
- Lu, F.C. 1995. *Basic Toxicology: Fundamentals, Target, Organs and Risk Assessment*. Diterjemahkan oleh E. Nugroho. UI Press, Jakarta. 429 hal.
- Mahbub, K.R., A. Mohammad, M.M. Ahmed and S. Begum. 2012. Decolorization of synthetic dyes using bacteria isolated from textile industry effluent. *Asian Journal of Biotechnology* 4(3): 129 – 136.
- Mahfudloh dan H. Lestari. 2017. Strategi penanganan limbah industri batik di Kota Pekalongan. *Journal of Public Policy and Management Review*. 6(3): 1-15.
- Moenir, M. 2006. *Pengelolaan Air Limbah Industri*. Makalah pada Workshop Pengembangan Teknologi Pengendalian Pencemaran Lingkungan – Bappedal Propinsi Jawa Tengah, 27 Juli 2006 di Semarang.
- Mondal, S. 2008. Methods of dye removal from dye house effluent. *Environmental Engineering Science* 25(3): 383-396.
- Montazer-Rahmati, M.M., P. Rabbani, A. Abdolali and A.R. Keshtkar. 2011. Kinetics and equilibrium studies on biosorption of cadmium, lead and nickel from aqueous solution by intact and chemically modified brown algae. *Journal of Hazardous Material* 185: 401-407.
- Mushollaeni, W. and E. Rusdiana. 2011. Karakterisasi natrium alginat dari *Sargassum* sp., *Turbinaria* sp., dan *Padina* sp. *J. Teknol dan Industri Pangan*. XXII(1): 26-32.



- Naddafi, K., R. Nabizadeh and R. Saeedi. 2005. Kinetics modeling of lead (II) and cadmium (II) biosorption from aqueous solutions by brown algae *Sargassum* sp. *Biomass. Pakistan Journal of Biological Sciences* 8(9): 1250 – 1255.
- Nasir, M. 2012. Model pengolahan limbah menuju *Environment Friendly Product. BENEFIT Jurnal Manajemen dan Bisnis* 6(1): 58-68.
- Nasreen, Z., B. Rukhsana and K. Tasnim. 2007. Decolorization of textile dyes and their effluents using white rot fungi. *Mycopath* 5(1): 49-52.
- Nurmaniah, I., F.H. Firdaus, A. Fitriana, M. Risanti, Irmansyah dan Irzaman. 2015. Karakterisasi Jamur Tiram Putih dengan Media Jagung Bula menggunakan Fourier Transform Infrared. *Prosiding Seminar Nasional Fisika 2015*, p:11-16 p-ISBN:2339-0654 e-ISBN:2476-9398
- Okuo, J.M., S.B. Sanni and S.U. Aigbedion. 2006. Selective biosorption of heavy metal ions from aqueous solutions by pre-treated Nigerian fresh water algae. *Trends in Applied Sciences Research* 1(1): 83-90.
- Omorogie, M.O., J.O. Babalola, E.I. Unubonah, W. Song and J.R. Gong. 2016. Efficient chromium abstraction from aqueous solution using a low-cost biosorbent: *Nauclea diderrichii* seed biomass waste. *Journal of Studi Chemical Society* 20: 49-57.
- OWALUDE, S.O and A.C. Tella. 2016. Removal of hexavalent chromuim fro aqueous solutions by adsorption on modified groundnut hull. *Beni-Suef University Journal of Basic Applied Science* 5: 377-388.
- Palar, H. 1994. *Pencemaran dan Toksikologi Logam Berat*. P.T. Rineka Cipta, Jakarta.
- Pathomsiriwong, W. and P. Reanprayoon. 2012. Biosorption of acid dyes by non-living aquatic macrophyte, *Hydrilla verticillata*. *Journal of Environmental Sciences and Technology* 5(5): 332 – 342.
- Phetsom, J., S. Khammuang, P. Suwannawong and R. Sarnthima. 2009. Copper-alginate encapsulation of crude laccase from *Lentinus polychrous*, Lev and their effectiveness in synthetic dyes decolorizations. *Journal of Biological Sciences* 9(6): 573 – 583.
- Putra, D.A., Lisdiana and T.A. Pribadi. 2014. Ram jet ventilation, perubahan struktur morfologi dan gambaran mikroanatomis insang Ikan Lele akibat paparan limbah cair pewarna batik. *Unnes Journal of Life Science* 3(1): 53-58).
- Puspita, U.R., A.S. Siregar and N.V. Hidayati. 2011. Kemampuan tumbuhan air sebagai agen fitoremediator logam berat kromium (Cr) yang terdapat pada limbah industri batik. *Berkala Perikanan Terubuk* 39(1): 58-64.



- Rajeswari, K., R. Subashkumar and K. Vijayaraman. 2011. Biodegradation of mixed textile dyes by bacterial strains isolated from dyewaste effluent. *Research Journal of Environmental Toxicology* 5(2): 97 – 107.
- Ramya, M., A. Bhaskar., S. Kalavathy and S. Devilaksmi. 2007. Biodecolorization and biodegradation of reactive blue by *Aspergillus* sp. *African Journal of Biotechnology* 6(12): 1441 – 1445.
- Rezaee, A., B. Ramavandi, F. Ganati, M. Ansari & A. Solimanian. 2006. Biosorption of mercury by biomass of filamentous algae *Spirogyra* species. *Journal of Biological Sciences* 6(4): 695-700.
- Riyani, K., T. Setyaningtyas and R. Andreas. 2007. Pemanfaatan Arang aktif Jerami Padi (AAJP) untuk menurunkan kadar zat warna dan logam berat pada limbah tekstil menggunakan modifikasi fotokatalis TiO₂. *Laporan Penelitian Riset Unggulan Daerah*. Balitbang Provinsi Jawa Tengah, Semarang.
- Riyanto. 2012. Penemuan teknik baru untuk pengolahan limbah batik. *Laporan Penelitian*. Prodi Ilmu Kimia, Universitas Islam Indonesia, Yogyakarta.
- Rizza, R. 2013. Hubungan antara kondisi fisik sumur gali dengan kadar nitrit air sumur gali di sekitar sungai tempat pembuangan limbah cair batik. *Unnes Journal of Public Health* 2(3): 1-10.
- Saefudin., E, Fitiana., dan Kusnadi. 2010. Penggunaan biomassa *Aspergillus niger* van Tieghem dalam biosorpsi krom dari limbah pertambangan nikel. *Laporan Penelitian Program Studi Biologi*, Universitas Pendidikan Indonesia, Bandung.
- Saha, R and B. Saha. 2014. Removal of hexavalent chromium from contaminated water by adsorption using mango leaves (*Mangifera indica*). *Desalination and Water Treatment* 52: 1928-1936.
- , I. Saha, R. Nandi, A. Ghosh, A. Basu, S.K. Ghosh and B. Saha. 2012. Application of Chattim Tree (Devil Tree *Alstonia Scholaris*) saw dust as a biosorbent for removal of hexavalent chromium from contaminated water. *The Canadian Journal of Chemical Engineering* 9999: 1-8
- Sahmoune, M. N., K. Lauhab and A. Baukhiar. 2008. The Adsorption of chromium from aqueous solution using dead biomass. *Environmental Research Journal* 2(5): 254-260.
- Santos, F.A., L. Alban, C.L.C. Frankenberg and M. Pires. 2016. Characterization and use of biosorbents prepared from forestry waste and their washed extracts to reduce/remove chromium. *Int. J. Environ. Sci. Technol.* 13: 327-338.
- Santoso, S., S. Lestari dan D. S. Windyartini. 2010. Biosorpsi kadmium pada leachate TPA Gunung Tugel menggunakan biomassa *Sargassum cinereum*. *Biosfera* 27(3): 126-132.



- Saptarini, D. 2009. Pengolahan limbah cair batik dengan metode koagulasi-flokulasi dan adsorpsi sistem batch. *Tesis*. Sekolah Pascasarjana, UGM.
- Saravanan, A., P.S. Kumar and B. Preetha. 2015. Optimization of process parameters for the removal of chromium (VI) and nickel (II) from aqueous solution by mixed biosorbent (custard apple seeds and *Aspergillus niger*) using response surface methodology. *Desalination and water treatment*: 1-14.
- Sasongko, D.P. dan W.P. Tresna. 2010. Identifikasi unsur dan kadar logam berat pada limbah pewarna batik dengan metode analisis pengaktifan neutron. *Jurnal Ilmu Pengetahuan dan Teknologi TELAAH* 27: 22-27.
- Sathiya-moorthi, P., S. Periyar selvam, A. Sasikalaveni, K. Murugesan and P.T. Kalaichelvan. 2007. Decolorization of textile dyes and their effluents using white rot fungi. *African Journal of Biotechnology* 6(4): 424-429.
- Sen, M and M.G. Dastidar. 2007. Biosorption of Cr(VI) by resting cells of *Aspergillus* sp. *Iran J. Environ. Health. Sci. Eng.* 4(1): 9-12.
- Shah, L.S. 2010. Hematological changes in *Tinca tinca* after exposure to lethal and sublethal doses of mercury, cadmium and lead. *Iranian Journal Fisheries Sciences* 9(3): 434-443
- Sheng, P.X., Y. Ting, J.P. Chen and L. Hong. 2004. Sorption of lead, copper, cadmium, zinc and nickel by marine algal biomass: characterization of biosorptive capacity and investigation of mechanisms. *Journal of Colloid and Interface Science* 275: 131-141.
- Sibi, G. 2016. Biosorption of chromium from electroplating and galvanizing industrial effluents under extreme conditions using *Chlorella vulgaris*. *Green Energy and Environment* 1: 172-177.
- Siddhant and C.S. Singh. 2009. Recycling of spent oyster mushroom substrate to recover additional value. *Journal of Science, Engineering and Technology* 5(2): 66-71.
- Simanjuntak, S.B.I., E. Yuwono dan F.N. Rachmawati. 2006. Pengaruh penyuplemen *Spirulina* dalam pakan terhadap hematologis Ikan Nilem (*Osteochilus hasselti* C.V). *Jurnal Pembangunan Pedesaan* 6(2): 82-88.
- Standar Nasional Indonesia No. 06-6989.11-2004. *Cara uji derajat keasaman (pH) dengan menggunakan alat pHmeter*. Badan Standarisasi Nasional, ICS 13.060.50
- Standar Nasional Indonesia No. 06-6989.14-2004. *Cara uji oksigen terlarut secara yodometri*. Badan Standarisasi Nasional, ICB 13.060.50



Standar Nasional Indonesia No. 03-7016-2004. *Tata cara pengambilan contoh dalam rangka pemantauan kualitas air pada suatu daerah aliran sungai*. Badan Standarisasi Nasional, ICB 13.060.45

Standar Nasional Indonesia No.06-6989.23:2005. *Cara uji suhu dengan termometer*. Badan Standarisasi Nasional, ICB 13.060.01

Badan Pusat Statistik Kabupaten Banyumas. 2015. *Statistik Daerah Kecamatan Sokaraja*. Nomor Publikasi 33025.15.25

Sudarja, N.C. 2012. Kaji eksperimental efektivitas penyerapan limbah cair Industri Batik Taman Sari Yogyakarta menggunakan arang aktif mesh 80 dari limbah gergaji kayu jati. *Jurnal Ilmiah Semesta Teknika* 14(1): 50 – 58.

Sudiarta, I.W. dan D.A. Yulihastuti. 2010. Biosorpsi Kromium (VI) pada serat sabut Kelapa Hijau (*Cocos nucifera*). *Jurnal Kimia* 4(2): 158 – 166.

Sugiono. 2001, *Teknik Sampling*, Jakarta, PT. Gramedia Pustaka Utama.

Sumarko, H.T., S. Lestari dan R.S. Dewi. 2013. Deodorisasi limbah cair batik menggunakan limbah baglog *Pleurotus ostreatus* dengan kombinasi volume dan waktu inkubasi berbeda. *Molekul* 8(2): 151-166.

Supenah, P., E. Widayastuti dan R.E. Priyono. 2015. Kajian kualitas air Sungai Condong yang terkena buangan limbah cait Batik Trusmi Cirebon. *Biosfera* 32(2): 110-118.

Susanto, T., S. Rakhamdiono dan Mujianto. 2001. Karakterisasi ekstrak alginat dari *Padina* sp. *Jurnal Teknologi Pertanian* 2(2): 96-109.

Tamamudin. 2016. Perilaku produksi industri batik Kota Pekalongan menurut etika produksi Islam. *Jurnal Hukum Islam* 14(2): 97-113.

Tan, P., C. Wong, S. Ong and S. Hii. 2009. Equilibrium and kinetic studies for Basic Yellow 11 removal by *Sargassum binderi*. *Journal of Applied Sciences* 9(17): 3005 – 3012.

Tandjung, S.D. 1982. The acute toxicity and histopathology of the Brook Trout (*Salvelinus fontinalis* Mitchell) exposed to allumunium in acid water. *Dissertation*. Fordham University, New York.

----- 1995. *Toxikologi Lingkungan*, UGM Press Yogyakarta.

Toha, M. 2003. *Perilaku Organisasi Konsep Dasar dan Aplikasinya*. Jakarta: Grafindo Persada.

Tran-Duy, A., A.A. Dam and J.W. Schrama. 2012. Feed Intake, Growth and Metabolism of Nile Tilapia (*Oreochromis niloticus*) in Relation to Dissolved Oxygen Concentration. *Aquaculture Research* 43: 730-744



Tyas, N.M., D.T.F.L. Batu dan R. Affandi. 2016. Uji toksitas letal Cr⁶⁺ terhadap Ikan Nila (*Oreochromis niloticus*). *JIPI* 21(2):128-132.

Utomo, N.B.P., F. Rahmatia dan M. Setiawati. 2012. Penggunaan *Spirulina platensis* sebagai suplemen bahan baku pakan ikan nila (*Oreochromis niloticus*). *Jurnal Akuakultur Indonesia* 11(1): 49-53.

Viera, R.H.S.F. and B. Volesky. 2000. Biosorption: A solution to pollution? *Internatk Microbiol* 3: 17-24.

Volesky, B. and Z.R. Holan. 1995. Biosorption of heavy metal. *Journal of Chemical and Technology* 11(3): 235-250.

Walgitto, B. 2002. *Psikologi Sosial (Suatu Pengantar)* Edisi III. Andi, Yogyakarta.

Xu, J., Y. Liu, S. Cui and X. Miao. 2006. Behavioral responses of tilapia (*Oreochromis niloticus*) to acute fluctuations in dissolved oxygen levels as monitored by computer vision. *Aquacultural Engineering* 35: 207-217.

Yang, J. and B. Volesky. 1999. Biosorption and elution of uranium with seaweed biomass. In: Biohydrometallurgy and the enviroment toward the mining of the 21st Century : International Biohydrometallurgy Symposium Proceedings. (20th – 23rd June, 1999, San Lorenzo de el Escorial, Madrid, Spain).

Youssef, A.S., M.F. El-Sherif and S.A. El-Assar. 2008. Studies on the decolorization of malachite green by the local isolate *Acremonium kilianse*. *Biotechnolog*, 7(2): 213 – 223.

Yu, M.H. 2005. *Environmental Toxicology: Biological and Health Effects of Pollutans*. Second Edition. CRC Press, Boca Raton Florida. 366 p.

Zulfahmi, I., Muliari dan I. Mawaddah. 2017. Toksisitas Limbah Cair Kelapa Sawit Terhadap Ikan Nila (*Oreochromis niloticus* Linneus 1758) dan Ikan Bandeng (*Chanos chanos* Froskall 1755). *Agricola* 7(1): 44-55.