

- G. K. Ghosh, Water of India (Quality and Quantity), 1st edition, A.P.H. Publishing Corporation, New Delhi, India (2002).
- [2] Maheshwari, Geetha Parmar, A Textbook of Energy Ecology Environment and Society, 1st edition, Anmol Publications Private Ltd, New Delhi, India (2002).
- [3] U. S. EPA, Protecting Water Quality from Agricultural Runoff (2005).
- [4] Anil Kumar De, Environmental Chemistry, 2nd Edition, 3rd Reprint, Wiley Eastern Limited, New Delhi, India (1992).
- [5] V. P. Kudesia, Ritu Kudesia, Water Pollution, 4th edition, Pragati Prakashan Publications, Meerut, India (2000).
- [6] David William O' Connell, Colin Birkinshaw, Thomas Francis O' Dwyer, Review: Heavy Metal Adsorbents prepared from the Modification of Cellulose, *Bioresource Technology*, 99 (2008) 6709-6724.
- [7] N. D. Lyn Patrick, Lead Toxicity, A Review of the Literature Part I: Exposure, Evaluation and Treatment, *Alternative Medicine Review*, 11 (**2006**) 1-22.
- [8] R. Naseem, S. S. Tahir, Removal of Pb(II) from Aqueous / Acidic Solutions by using Bentonite as an Adsorbent, *Water Resource*, 35 (2001) 3982-3986.
- [9] G.M. Naja, B. Volesky, Toxicity and Sources of Pb, Cd, Hg, Cr, As, and Radionuclides in the Environment. Chapter 2. In: Wang LK, Chen JP, Hung Y, Shammas NK, editors. Heavy Metals in the Environment. Boca Raton: CRC Press, (2009).
- P. D. Abel, Electrokinetic remediation Basic and Technology Status, *Journal Hazardous Water pollution biology*, 2 (2002).
- [11] V. Hiatt, J.E. Huff, The Environmental Impact of Cadmium, International Journal of Environmental Studies, 7 (1975) 277 – 285.
- [12] M. Fleischer, A.F. Sarofim, D.W. Fassett, P. Hammond, H.T. Shacklette, I.C. Nisbet and S. Epstein, Environmental Impact of Cadmium: A review by the Panel on Hazardous Trace Substances, *Environmental Health Perspectives*, 7 (1974) 253 – 323.

- [13] M. Csuros, C. Csuros, Environmental Sampling and Analysis for Metals, London: Lewis publishers (2002).
- [14] Pan, J. A. Plant, N. Voulvoulis, C. J. Oates and C. Ihlenfeld, Cadmium Levels in Europe: Implications for Human Health, *Environmental Geochemistry and Health*, 32 (2010) 1- 12.
- [15] L. Jarup and A. Akesson, Current Status of Cadmium as an Environmental Health Problem, *Toxicology and Applied Pharmacology*, 238 (3) (2009) 201 – 208.
- [16] G. A. Drash, Increase of Cadmium Body Burden for the Century, *Science of Total Enviroment*, 67 (**1993**) 75-89.
- [17] Nogawa Koji, E. Kobayashi, Y. Okubo, Y. Suwazono, Environmental Cadmium Exposure, Adverse Effects and Preventive Measures in Japan, *Biometals.*, 17 (2004) 581-587.
- [18] Krishnan Kannan, Fundamentals of Environmental Pollution, S. Chand & Company Ltd, New Delhi, India (1998).
- [19] Dhiraj Sud, Garima Mahajan, M. P. Kaur, Review: Agricultural Waste Material as Potential Adsorbent for Sequestering Heavy Metal Ions from Aqueous Solutions, *Bioresource Technoogy*, 99 (2008) 6017-6027.
- [20] S. S. Dara, A Text Book of Environmental Chemistry and Pollution Control, 1st edition, S. Chand and Company Ltd, New Delhi, India (2000).
- [21] V. Patmavathy, P. Vasudevan, S.C. Dhingra, Biosorption of Nickel(II) Ions on Baker's Yeast, *Process Biochemistry*, 38 (2003) 1389-1395.
- [22] J. P. Thyssen, A. Linneberg, T. Menne, J.D. Johansen, The Epidemiology of Contact Allergy in the General Population Prevalence and Main Findings, *Contact Dermatitis*, 57 (2007) 287-299.
- [23] Umesh K. Garg, M.P. Kaur, V.K. Garg, DhirajSud, Removal of Nickel(II) from Aqueous Solution by Adsorption on Agricultural Waste Biomass using a Response Surface Methodological Approach, *Bioresource Technology*, 99 (2008) 1325-1331.

- [24] L. K. Wang, J. P. Chen, Y. Hung, N. K. Shammas, Heavy Metals in the Environment, Boca Raton: CRC Press (2009).
- [25] D. Mohan, V.K.Rajputa, S. Singh, P. H. Steele, C.U. Pittman, Modeling and Evaluation of Chromium Remediation from Water using Low Cost Bio-char, a Green Adsorbent, *Journal of Hazardous Materials*, 188 (2011) 319 – 333.
- [26] D. Mohan, K. P. Singh, V. K. Singh, Trivalent Chromium Removal from Wastewater using Low Cost Activated Carbon derived from Agricultural Waste Material and Activated Carbon Fabric Cloth, *Journal of Hazardous Materials*, 135 (2006) 280 – 295.
- [27] D. E. Kimbrough, Y. Cohen, A. M. Winer, L. Creelman, C. A. Mabuni, Critical Assessment of Chromium in the Environment, *Critical Reviews in Environment Science and Technology*, 29 (1999) 1 – 46.
- [28] D. Mohan, C. U. Pittman, Activated Carbons and Low Cost Adsorbents for Remediation of Tri- and Hexavalent Chromium from Water, *Journal of Hazardous Materials*, 137 (2006) 762 – 811.
- [29] Al-Shammiri, M, Al-Saffar. A, Bohamad. S & Ahmed. M, Waste Water Quality and Reuse in Irrigation in Kuwait using Microfiltration Technology in Treatment, *Desalination and Water Treatment*, 185 (1-3) (2005) 213-225.
- [30] A. Bhatnagar and M Sillanpaa., Utilization of Agro-Industrial and Municipal Waste Materials as Potential Adsorbents for Water Treatment A review, *Chemical Engineering Journal*, 157 (2-3) (2010) 277-296.
- [31] M. Sarioglu, S. Akkoyun and T. Bisgin, Inhibition Effects of Heavy Metals (Copper, Nickel, Zinc, Lead) on Anaerobic Sludge, *Desalination and Water Treatment*, 23 (1-3) (2010) 55-60.
- [32] Y. Fu and T. Viraraghavan, Fungal Decolorization of Dye Wastewaters: a Review, *Bioresource Technology*, 79 (3) (2001) 251-262.
- [33] T. Kikuchi and S. Tanaka, Biological Removal and Recovery of Toxic Heavy Metals in Water Environment, *Critical Reviews in Environmental Science and Technology*, 42 (10) (2012) 1007-1057.

- [34] Y. Chen, Y. Liu, Q Zhou and G. Gu, Enhanced Phosphorus Biological Removal from Wastewater Effect of Microorganism Acclimatization with Different Ratios of Short-Chain Fatty Acids Mixture, *Biochemical Engineering Journal*, 27 (1) (2005) 24-32.
- Y. Wu, J. Zhou, Y Wen and L. Jiang, Biosorption of Heavy Metal Ions (Cu²⁺, Mn²⁺, Zn²⁺, and Fe³⁺) from Aqueous Solutions Using Activated Sludge: Comparison of Aerobic Activated Sludge with Anaerobic Activated Sludge, *Applied Biochemistry and Biotechnology*, 168 (8) (2012) 2079-93.
- [36] W. C. Chang, G. S. Hsu, S. M. Chiang and M. C. Su, Heavy Metal Removal from Aqueous Solution by Wasted Biomass from a Combined AS-biofilm Process, *Bioresource Technology*, 97 (13) (2006) 1503-1508.
- [37] S. Baig and P. A Liechti, Ozone Treatment for Biorefractory COD removal, Water Science and Technology, 43 (2) (2001) 197-204.
- [38] R. F. Saad, Selected Heavy Metal and Organic Removal from Wastewater by Precipitation and Ozonation Process, Master of Applied Science thesis, University of Ottawa, Canada (1998).
- [39] S. Morrison, Research and Application of Permeable Reactive Barriers, U.S. Department of Energy (1998).
- [40] N. Ott, Solid Waste and Emergency Response, U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response (1998).
- [41] A. Groffman, S. Peterson and D. Brookins, Removing Lead from Wastewater using Zeolite, *Water Environmental Technology*, 4 (1992) 54-59.
- [42] Sultan Ahmed, Shiraz Chughtai, Mark A.Keane, The Removal of Cadmium and Lead from Aqueous Solution by Ion Exchange with NaY Zeolite, *Separation and Purification Technology*, 13 (1) (1998) 57-64.
- [43] V. J. Inglezakis, A. A. Zorpas, M. D. Loizidou and H. P. Grigoropoulou, The Effect of Competitive Cations and Anions on Ion Exchange of Heavy Metals, *Separation and Purification Technology*, 46 (3) (2005) 202 – 207.

- [44] C. Escobar, C. Soto-Salazar and M. Inés Toral, Optimization of the Electrocoagulation Process for the Removal of Copper, Lead and Cadmium in Natural Waters and Simulated Wastewater, *Journal of Environmental Management*, 81 (4) (2006) 384-91.
- [45] J. Rubio and F. Tessele, Removal of Heavy Metal Ions by Adsorptive Particulate Flotation, *Minerals Engineering*, 10 (7) (**1997**) 671-679.
- [46] S. B. McCray and R. J. Ray, Concentration of Synfuel Process Condensates by Reverse Osmosis, *Separation Science and Technology*, 22 (2-3) (**1987**) 745-62.
- [47] T. A. Peters, Desalination and industrial waste water treatment with the ROCHEM Disc Module DT, *Desalination*, 83 (1-3) (1991) 159-72.
- [48] D. Sud, G. Mahajan and M. P. Kaur, Agricultural Waste Material as Potential Adsorbent for Sequestering Heavy Metal Ions from Aqueous Solutions A review, *Bioresource Technology*, 99 (14) (2008) 6017-27.
- [49] J. Febrianto, A. N. Kosasih, J. Sunarso, Y-H Ju, N. Indraswati and S. Ismadji, Equilibrium and Kinetic Studies in Adsorption of Heavy Metals using Biosorbent: A summary of recent studies, *Journal of Hazardous Materials*, 162 (2-3) (2009) 616-45.
- [50] J. Wang and C. Chen, Biosorption of Heavy Metals by Saccharomyces cerevisiae: A review, *Biotechnology Advances*, 24 (5) (2006) 427-51.
- [51] G. McKay, M. S. Otterburn and A. G. Sweeney, The Removal of Colour from Effluent using various Adsorbents III. Silica: Rate processes, *Water Research*, 14 (1) (1980) 15-20.
- [52] G. Raj, Surface Chemistry, Krishna Prakashan, (2002).
- [53] J. Toth, Adsorption, Taylor and Francis, CRC Press, (2002).
- [54] F. L. Slejko, Adsorption Technology: A Step-By-Step Approach to Process Evaluation and Applications, Marcel Dekker Incorporated (1985).
- [55] M. Suzuki, Adsorption Engineering, Kodansha. (1990).
- [56] H. Ibach, Physics of Surfaces and Interfaces, Springer, (2006).

- [57] M. Bhaumik, H. J. Choi, M. P. Seopela, R.I. McCrindle and A. Maity, Highly Effective Removal of Toxic Cr(VI) from Wastewater using Sulfuric Acid-Modified Avocado Seeds, *Industrial and Engineering Chemistry Research*, 53 (2014) 1214–1224.
- [58] Mun-Seon Song, K. Vijayarangamuthu, EunJi Han, and Ki-Joon Jeon, Effective Removal of Heavy Metals from Wastewater Using Modified Clay, *Journal of Nanoscience and Nanotechnology* 16(5) (2016) 4469-4473.
- [59] C.Y. Abasi, A. A. Abia and J. C. Igwe, Adsorption of Iron(II), Lead(II) and Cadmium(II) Ions by Unmodified (*Raphiahookeri*) Fruit Endocarp, *Environmental Research Journal*, 5 (3) (2011) 104-113.
- [60] Ankit Balaria and Silke Schiewer, Assessment of Biosorption Mechanism for Pb Binding by Citrus Pectin, Separation and Purification Technology, 63 (2008) 577-581.
- [61] Kazem Naddafia, Ramin Nabizadeh, Reza Saeedi, Amir Hossein Mahvi, Forough Vaezi, Kamyar Yaghmaeian, Azar Ghasri and Shahrokh Nazmara, Biosorption of Lead (II) and Cadmium (II) by Protonated Sargassumglaucescens Biomass in a Continuous Packed Bed Column, Journal of Hazardous Materials, 147 (2007) 785-791.
- [62] Muhammad H. Al- Malack and Abdullah A. Basaleh, Adsorption of Heavy Metals using Activated Carbon Produced from Municipal Organic Solid Waste, *Desalination and water treatment*, 57 (51) (2016), 1-13.
- [63] G. Annadurai, R. S. Juang and D.J. Lee, Adsorption of Heavy Metals from Water using Banana and Orange Peels, *Water Science Technology*, 47 (**2003**) (1) 185-190.
- [64] E. Erdema, N. Karapinar and R. Donat, The Removal of Heavy Metal Cations by Natural Zeolites, *Journal of Colloid and Interface Science*, 280 (**2004**) 309–314.
- [65] M. A. Awan, A. Qazi and I. Khalid, Removal of Heavy Metals through Adsorption using Sand, *Journal of Environmental Science* (china), (3) (2003) 413-416.
- [66] Flavio A. Pavan, Ana C. Mazzocato, Rosangela A. Jacques and Silvio L.P. Dias, Ponkan peel - A Potential Biosorbent for Removal of Pb (II) Ions from Aqueous Solution, *Biochemical Engineering Journal*, 40 (2008) 357-362.

- [67] D. Harikishore Kumar Reddy, K. Seshaiah, A. V. R. Reddy, M. MadhavaRao and M. C Wang, Biosorption of Pb2+ from Aqueous Solutions by Moringa oleifera bark: Equilibrium and Kinetic Studies, *Journal of Hazardous Materials*, 174 (2010) 831-838.
- [68] M. E. Argun, S. Dursun, K. Gur, C. Ozdemir, M. Karatas and S. Dogan, Nickel Adsorption on the Modified Pine Tree Materials, *Environmental Technology*, 26 (5) (2005) 479-488.
- [69] F. Martin Dupont, V. Gloaguen, R. Granet, M. Guilloton, H. Morvan and P. Krausz, Heavy Metal Adsorption by Crude Coniferous Barks: a Modelling Study, *Journal of Environmental Science Health*, Part A,37 (6) (2002) 1063-1073.
- [70] Javad Zolgharnein, Ali Shahmoradi and Mohammad Reza Sangi, Optimization of Pb (II) Biosorption by Robinia Tree Leaves using Statistical Design of Experiments, *Talanta*, 76 (2008) 528-532.
- [71] M. N. Prasad and H. Freitas, Removal of Toxic Metals from Solution by Leaf, Stem and Root Phytomass of *Quercusilex L*. (holly oak), *Environmental Pollution*, 110 (2) (2000) 277-283.
- [72] H.T. Hamed Mosavian and M. Khazaei Aliabadi, Use of Sawdust of Aspen Tree for the Removal of Chromium(VI) from Aqueous Solution. The 1st International Applied Geological Congress, Department of Geology, Islamic Azad University -Mashad Branch, Iran, (2010).
- [73] J. Patil, A. G. Bhole and G. S. Natarajan, Scavenging of Ni(II) Metal Ions by Adsorption on PAC and Babhul Bark, *Journal of Environmental Science and Engineering*, 48 (3) (2006) 203-208.
- [74] D. Bingol, M. Hercan, S. Elevli and E. Kılıc, Comparison of the Results of Response Surface Methodology and Artificial Neural Network for the Biosorption of Lead using Black Cumin, *Bioresource Technology*, 112 (2012) 111–115.
- [75] Sandhya Babel and Tonni, Cr(VI) Removal from Synthetic Wastewater using Coconut Shell Charcoal and Commercial Activated Carbon Modified with Oxidizing Agents and/or chitosan, *Chemosphere*, 62 (2004) 731-740.

- [76] S. Dahbi, M. Azzi and de la Guardia, Removal of Hexavalent Chromium from Wastewaters by Bone Charcoal, *Fresenius Journal of Analytical Chemistry*, 363 (1999) 404 – 407.
- [77] T. Palvannan, M. Arulkumar, K. Thirumalai and P. Sathishkumar, Rapid Removal of Chromium from Aqueous Solution using Novel Prawn Shell Activated Carbon, *Chemical Engineering Journal*, 185 (2012) 178-186.
- [78] Raziya Nadeem, Tariq Mahmood Ansari and Ahmad Mukhtar Khalid, Fourier Transform Infrared Spectroscopic Characterization and Optimization of Pb (II) Biosorption by Fish (*Labeorohita*) Scales, *Journal of Hazardous Materials*, 156 (2008) 64-73.
- [79] Sudhir Dahiya, Tripathi R.M. and Hegde A.G., Biosorption of Lead and Copper from Aqueous Solutions by Pre-Treated Crab and Arca Shell Biomass, *Bioresource Technology*, 99 (2008) 179-187.
- [80] Raziya Nadeema, Muhammad Asif Hanif, Fatima Shaheen, Shahnaz Perveen, Muhammad Nadeem Zafar and Tahira Iqbal, Physical and Chemical Modification of Distillery Sludge for Pb (II) Biosorption, *Journal of Hazardous Materials*, 150 (2008) 335-342.
- [81] V. K. Garg, Rakesh Kumar and Renuka Gupta, Removal of Malachite Green Dye from Aqueous Solution by Adsorption using Agro-Industry Waste: a case study of *Prosopis cineraria*, *Dyes Pigments*, 62 (2004) 1–10.
- [82] Onundi Y.B, Mamun A.A, Al Khatib A.F, Al Saadi M.A and Suleyman A.M, Heavy Metals Removal from Synthetic Wastewater by a Novel Nano-size Composite Adsorbent. *International Journal of Environmental Science and Technology*, 8 (4) (2011) 799-806.
- [83] Shihabudheen M. Maliyekkal, Kinattukara P. Lisha and T. Pradeep, A novel Cellulose–Manganese Oxide Hybrid Material by in situ Soft Chemical Synthesis and its Application for the Removal of Pb (II) from Water, *Journal of Hazardous Materials*, 181 (2010) 986-995.

- [84] M Kumar, R Tamilarasan, Modeling of Experimental Data for the Adsorption of Methyl Orange from Aqueous Solution using a Low Cost Activated Carbon Prepared from *Prosopisjuliflora*, *Polish Journal of Chemical Technology*, 15 (2) (2013) 9-39.
- [85] N. Ahalya, R. D. Kanamadi and T. V. Ramachandra, Biosorption of Chromium (VI) by *Tamarindus Indica* pod shells, *International Journal of Environmental Science Research*, 1(2) (2008) 77-81.
- [86] Cinzia Tonetti, Annalisa Aluigi, Francesca Selmin, Francesco Cilurzo, Giorgio Mazzuchetti, Removal of Cu(II) Ions from Water using Thermally-Treated Horn–Hoof Powder as Biosorbent, *Desalination and Water Treatment*, 55 (4) (2015) 1105-1115.
- [87] Muhammad Salman, Biosorption of Heavy Metals from Aqueous Solutions using Indigenous and Modified Lingocellulosic Materials, *Reviews in Environmental* and Biotechnology, 14 (2) (2015) 211-228.
- [88] O. F. Olorundare, T. A. M. Msagati, R. W. M. Krause, J. O. Okonkwo and B. B. Mamba, Preparation and Use of Maize Tassels Activated Carbon for the Adsorption of Phenolic Compounds in Environmental Wastewater Samples, *Environmental Science & Pollution Research*, 22 (2015) 5780-5792.
- [89] Isabel Villaescusa, Nuria Fiol, Maria Mortinez, Naria Miralles, Jordi Pochand and Joan Serarols, Removal of Cu(II) and Ni(II) Ions from Aqueous Solution by Grape Stalk Wastes, *Water Research.*, 38 (2004) 992-1002.
- [90] Methods of Sampling and Tests for Activated Carbon used for Decolourising Vegetable Oils and Sugars Solutions, ISI, Indian standard Institute (**1977**).
- [91] S. A. Wilde, G. K. Voigt and J.J. Iyer, Soil and Plant Analysis for Tree Culture, Ed: G. Chesters, 4th edition, Oxford and IBH Publishing Co., New Delhi, India (1972).
- [92] Tarun Kumar Naiya, Ashim Kumar Bhattacharya, Sailendranath Mandal, Sudip Kumar Das, The Sorption of Lead(II) Ions on Rice Husk Ash, *Journal of Hazardous Materials*, 163 (2009) 1254-1264.

- [93] D. G. Kinniburg, J. K. Syeres and M. L. Jackson, Specific adsorption of Trace Amounts of Calcium and Strontium by Hydrous Oxides of Iron and Aluminium, *Soil Science Society of America Proceedings*, 39 (1975) 464-490.
- [94] H. P. Boehm, Some Aspects of the Surface Chemistry of Carbon Blacks and other Carbons, *Carbon*, 32 (1994) 759-769.
- [95] M. Zabihi, Ali Ahmadpour and A. Haghighi Asl, Removal of Mercury from Water by Carbonaceous Sorbents derived from Walnut Shell, *Journal of Hazardous Materials*, 167 (2009) 230-236.
- [96] S. Sugashini, K. M. Meera and Sheriffa Begum, Column Adsorption Studies for the Removal of Cr(VI) Ions by Ethylamine Modified Chitosan Carbonized Rice Husk Composite Beads with Modelling and Optimization, *Journal of Chemistry*, 2013 (2012) 1-11.
- [97] S. H. Hasan, K. K. Singh, O. Prakash, M. Talat and Y. S. Ho, Removal of Cr(VI) from Aqueous Solutions using Agricultural Waste Maize Bran, *Journal of Hazardous Materials*, 152 (2008) 356-365.
- [98] Ahmet Sari, Mustafa Tuzen, Biosorption of Pb(II) and Cd(II) from Aqueous Solution using Green Alga (Ulvalactuca) Biomass, Journal of Hazardous Materials, 152 (2008) 302-308.
- [99] Silke Schiewer, Ankit Balaria, Biosorption of Pb2+ by Original and Protonated Citrus Peels: Equilibrium, Kinetics and Mechanisms, *Chemical Engineering Journal*, 146 (2009) 211-219.
- [100] V. K. Gupta and A. Rastogi, Biosorption of Lead from Aqueous Solutions by Green Algae Spirogyra species: Kinetics and Equilibrium studies, Journal of Hazardous Materials, 152 (2008) 407-414.
- [101] M. Nameni, M. R. Alavi Moghadam and M. Arami, Adsorption of Hexavalent Chromium from Aqueous Solutions by Wheat Bran, International *Journal of Environmental Science and Technology*, 5, (2008) 161-168.
- [102] Zouhair Elouear, J Bouzid, N Boujelben, Removal of Nickel and Cadmium from Aqueous Solutions by Sewage Sludge Ash: Study in Single and Binary Systems, *Journal of Environmental Technology*, 30 (6) (2009) 561-570.

- [103] Stella Triyantafylou, Eirini Christodoulou and Paraskevi Neou-Syngouna, Removal of Nickel and Cobalt from Aqueous solution by Na activated Bentonite, *Clay and Clay Minerals*, 47 (1999) 567-572.
- [104] Hanim Awab, *Thanalechumi Paramalinggam* Mussel Shell and Waterworks Sludge as Sorbent Materials for the Removal of Cu(II) from Aqueous Solution, *Journal of Fundamental Science*, 7 (2) (2003) 113-119.
- [105] E. Demirbas, M. Kobya, A. E. S. Konukman, Error Analysis of Equilibrium Studies for the Almond Shell Activated Carbon Adsorption of Cr(VI) from Aqueous Solutions, *Journal of Hazardous Materials*, 154 (2008) 787-794.
- [106] Manjeet Bansal, Umesh Garg, Diwan Singh, VK Garg, Removal of Cr(VI) from Aqueous Solutions using Pre-consumer Processing Agricultural Waste : A case study of rice husk, *Journal of Hazardous Materials*, 162 (2009) 312-320.
- [107] Ozgur Dogan Uluozlu, Ahmet Sari, Mustafa Tuzen, Mustafa Soylak, Bio Sorption of Pb(II) and Cr(III) from Aqueous Solution by Lichen (*Parmelinatiliaceae*) biomass, *Bioresource Technology*, 99 (2008) 2972-2980.
- [108] Ting Fan, Yunguo Liu, Baoying Feng, Guangming Zeng, Chunping Yang, Ming Zhou, Haizhou Zhou, Zhenfeng Tan, Xin Wang, Biosorption of Cadmium(II), Zinc(II) and Lead(II) by *Penicilliumsimplicissimum*: Isotherms, Kinetics and Thermodynamics, *Journal of Hazardous Materials*, 160 (2008) 655-661.
- [109] Suresh Gupta, B.V. Babu, Utilization of Waste Product (tamarind seeds) for the Removal of Cr(VI) from Aqueous Solutions: Equilibrium, Kinetics and Regeneration studies, *Journal of Environmental Management*, 90 (2009) 3013-3022.
- [110] N. Muthulakshmi Andal, Studies on the Adsorption of Iron(III), Copper(II), Zinc(II) and Chromium(VI) using Naturally Occurring Polymers, Ph.D., Thesis, The Gandhigram Rural Institute-Deemed University, Tamil Nadu, India (2003).
- [111] Mehmet Emin Argun, Sukru Dursun, Celalettin Ozdemir, Mustafa Karatas, Heavy Metal Adsorption by Modified Oak Sawdust: Thermodynamics and Kinetics, *Journal of Hazardous Materials*, 141 (2007) 77-85.

- [112] IUPAC Manual of Symbols and Terminology of Colloid Surface, Butterworths, London, (1982).
- [113] V. C. Srivastava, I. D. Mall and I. M. Mishra, Characterization of Mesoporous Rice Husk Ash (RHA) and Adsorption Kinetics of Metal Ions from Aqueous Solution onto RHA. *Journal of Hazardous Materials*, 134 (2006) 257-267.
- [114] T. K. Naiya, A. K. Bhattacharya, S. Mandal and S. K. Das, The Sorption of Lead(II) Ions on Rice Husk Ash, *Journal of Hazardous Materials*, 163 (2009) 1254-1264.
- [115] V. P. Della, I. Kuhn and D. Hotza, Characterization of Rice Husk Ash for use as Feedstock in the Manufacture of Silica Refractories, *Quimica Nova*, 24 (2001) 778-782.
- [116] S L Goertzen, K D Thériault, A M Oickle, A C Tarasuk and H A Andreas, Standardization of the Boehm Titration—part I: CO₂ Expulsion and Endpoint determination, *Carbon*, 48 4 (2010) 1252–1261.
- [117] Z Milan Momcilović, E AntonijeOnjia, M Milovan Purenovic, R Aleksandra Zarubic and S Marjan Ranđelovic, Removal of a Cationic Dye from Water by Activated Pinecones, *Journal of the Serbian Chemical Society*, 77 (6) (2012) 761–774.
- [118] F. A. Lo'pez, T A Centeno, I Garcı'a-Dı'az, F J Alguacil, Texture and Fuel Characteristics of the Char produced by the Pyrolysis of Waste Wood and the Properties of Activated Carbons prepared from them, *Journal of Analytical and Applied Pyrolysis* 10 (2013) 551–558.
- [119] P. S. Kumar, S. Ramalingam, S. D. Kirupha, A. Murugesan, T. Vidyadevii and S. Sivanesan, Adsorption Behaviour of Nickel(II) onto Cashew Nut Shell: Equilibrium, Thermodynamic, Mechanism and Process Design, *Chemical Engineering Journal*, 167 (2011) 122–131.
- [120] M. K. Mondal, Removal of Pb(II) from Aqueous Solution by Adsorption using Activated Tea Waste, *Korean Journal of Chemical Engineering*, 27 (1) (2012) 144–151.

- [121] P. D. Grover, P. V. R. Iyer and T R Rao, Biomass-Thermochemical Characterization, 3rd edn. IIT Delhi MNES (2002).
- [122] D. H. K. Reddy, D. K. V. Ramana and A. V. R. Seshaiah Reddy Biosorption of Ni(II) from Aqueous Phase by *Moringa Oleifera* Bark, a Low Cost Biosorbent. *Desalination* 268 (2011) 150–157.
- [123] M. Jain, V. K. Garg and K. Kadirvelu, Cadmium(II) Sorption and Desorption in a Fixed Bed Column using Sunflower Waste Carbon Calcium-Alginate Beads. *Bioresource Technology*, 129 (2013) 242–248.
- [124] F. Taner, I. Ardic, B. Halisdemir and E Pehlivan, Biomass use and Potential in Turkey. In: Biomass and Agricultural: Sustainability, Markets and Policies. OED publication (2004).
- [125] C. Liu, HH Ngo & WS Guo, Watermelon Rind: Agro-Waste or Superior Biosorbent, Applied Biochemical and Bioengineering, 167 (2012)1699-1715.
- [126] Tarun Kumar Naiya, Pankaj Chowdhury, Ashim Kumar Bhattacharya, Sudip Kumar Das, Sawdust and Neem Bark as Low-Cost Natural Biosorbent for Adsorptive Removal of Zn(II) and Cd(II) Ions from Aqueous solutions, *Chemical Engineering Journal*, 148 (2009) 68-79.
- [127] Ahmet Ornek, Mahmut Ozacar, I. Ayhan Sengil, Adsorption of Lead onto Formaldehyde or Sulphuric acid treated Acorn Waste: Equilibrium and Kinetic Studies, *Biochemical Engineering Journal*, 37 (2007) 192-200.
- [128] M.F. El-Shahat and A.M.A. Shehata, Adsorption of Lead, Cadmium and Zinc Ions from Industrial Wastewater by Using Raw Clay and Broken Clay-Brick Waste, Asian Journal of Chemistry, 25 (8), (2013),4284-4288.
- [129] E.I. EL-Shafey, Removal of Zn(II) and Hg(II) from Aqueous Solution on a Carbonaceous Sorbent Chemically prepared from Rice husk, *Journal of Hazardous Materials*, 175 (2010) 319-327.
- [130] Zainul Aknar Zakaria, Marlini Suratman, Nurfadilah Mohammed, Wan Azlina Ahmad, Chromium(VI) Removal from Aqueous Solution by Untreated Rubber Wood Sawdust, *Desalination*, 244 (2009) 109-121.

- [131] Muhammad Riaz, Raziya Nadeem, Muhammad Asif Hanif, Tariq Mehmood Ansari, Khalil-ur-Rehman, Pb(II) Biosorption from Hazardous Aqueous Streams using Gossypium Hirsutum (Cotton) Waste Biomass, Journal of Hazardous Materials, 161 (2008) 88-94.
- [132] M. Madhava Rao, G.P. Chandra Rao, K. Seshaiah, N.V. Choudary, M.C. Wang, Activated Carbon from Ceibapentandra Hulls, an Agricultural Waste, as an Adsorbent in the Removal of Lead and Zinc from Aqueous Solutions, *Journal of Waste Management*, 28 (2008) 849-858.
- [133] R. Ayyappan, A. Carmalin Sophia, K. Swaminathan, S. Sandhya, Removal of Pb(II) from Aqueous Solution using Carbon Derived from Agricultural Wastes, *Process Biochemistry*, 40 (2005) 1293-1299.
- [134] S. A. Bhale Rao, Biosorption of Chromium (VI) from an Aqueous Solution using *Azadirachtaindica A.Juss.* (Neem) and Activated Charcoal: A Comparative study, *Biological Forum – An International Journal*, 2 (2) (2010) 4-10.
- [135] P.L. Soni, Mohan Katyal, Text Book of Inorganic Chemistry (modern Approach), Sultan Chand & Sons, 20th Revised edition, Educational Publishers, New Delhi, India (2001).
- [136] K.P. Shubha, C. Raji, T.S. Anirudhan, Immobilization of Heavy Metals from Aqueous Solutions using Polyacrylamide Grafted Hydrous Tin(IV) Oxide Gel having Carboxylate Functional Groups, *Water Research*, 35 (2001) 300-310.
- [137] V.K. Gupta, A. Rastogi, Sorption and Desorption Studies of chromium(VI) from nonviable Cyanobacterium Nostocmuscorum Biomass, Journal of Hazardous Materials, 154 (2008) 347-354.
- [138] Asma Saeed, Muhammed Iqbal, M. WaheedAkhtar, Removal and Recovery of Lead(II) from Single and Multi metal (Cd, Cu, Ni, Zn) Solutions by Crop Milling Waste (Black Gram Husk), *Journal of Hazardous Materials*, 117 (2005) 65-73.
- [139] K. Kadirvelu, M. Kavipriya, C. Karthika, N. Vennilamani and S. Pattabhi, Mercury(II) Adsorption by Activated Carbon made from Sago Waste, *Carbon*, 42 (2004) 745-752.

- [140] Emine Malkoc, Yasar Nuhoglu, Determination of Kinetic and Equilibrium Parameters of the Batch Adsorption of Cr(VI) onto Waste Acorn of *Quercusitha burensis*, *Chemical Engineering Journal*, 46 (2007) 1020-1029.
- [141] Ali Gundogdu, Duygu Ozdes, Celal Duran, Volkan Numan Bulut, Mustafa Soylak, Hasan Basri Senturk, Biosorption of Pb(II) Ions from Aqueous Solution by Pine Bark (*Pinusbrutia Ten.*), *Chemical Engineering Journal*, 153 (2009) 62-69.
- [142] Yuh-Shan Ho, Review of Second-Order Models for Adsorption Systems, *Journal of Hazardous Materials*, 136 (2006) 681-689.
- [143] Ozgul Gercel, H. FerdiGercel, Adsorption of Lead(II) ions from Aqueous Solutions by Activated Carbon Prepared from Biomass Plant Material of Euphorbia Rigida, Chemical Engineering Journal, 132 (2007) 289-297.
- [144] Ru-Ling T Seng, Feng-Chin Wu, Ruey-Shin Juang, Liquid-Phase Adsorption of Dyes and Phenols using Pinewood-based Activated Carbons, *Carbon*, 41 (2003) 487-495.
- [145] C.W. Cheung, J.F. Porter, G. McKay, Sorption Kinetic Analysis for the Removal of Cadmium ions from Effluents using Bone Char, *Water Research*, 35 (2001) 605-612.
- [146] Koel Banerjee, S.T. Ramesh, R. Gandhimathi, P.V. Nidheesh and K.S. Bharathi, A Novel Agricultural Waste Adsorbent, Watermelon Shell for the Removal of Copper from Aqueous Solutions, *Iranica Journal of Energy & Environment*, 3 (2) (2012) 143-156.
- [147] Ilhem Ghodbane, Oualid Hamdaoui, Removal of Mercury(II) from Aqueous Media using Eucalyptus Bark: Kinetic and Equilibrium studies, *Journal of Hazardous Materials*, 160 (2008) 301-309.
- [148] Gulay Bayramoglu, M Yakup Arica, Removal of Heavy Mercury(II), Cadmium(II) and Zinc(II) Metal Ions by Live and Heat Inactivated Lentinusedodes pellets, *Chemical Engineering Journal*, 143 (2008) 133-140.

- [149] Sharda Gupta, Dhananjay Kumar, J P Gaur, Kinetic and Isotherm Modeling of Lead(II) Sorption onto some Waste Plant Materials, *Chemical Engineering Journal*, 148 (2009) 226-233.
- [150] Xue Song Wang, Zhi Zhong Li, Sheng Rong Tao, Removal of Chromium(VI) from Aqueous Solution using Walnut Hull, *Journal of Environmental Management*, 90 (2009) 721-729.
- [151] S. F. Montanher, E. A. Oliveira and M. C. Rollemberg, Removal of Metal Ions from Aqueous Solutions by Sorption onto Rice Bran, *Journal of Hazardous Materials*, 117 (2005) 207-211.
- [152] Yuh-Shan Ho and Chung-Chi Wang, Sorption Equilibrium of Mercury onto Ground-up Tree Fern, *Journal of Hazardous Materials*, 156 (2008) 398-404.
- [153] T. Karthikeyan and S. Rajagopal, Lima Rose Miranda, Chromium (VI) Adsorption from Aqueous Solution by *Hevea Brasilinesis* Sawdust Activated Carbon, *Journal of Hazardous Materials*, 124 (2005) 192-199.
- [154] B.M.W.P.K. Amarasinghe, R.A. Williams, Tea Waste as a Low Cost Adsorbent for the Removal of Cu and Pb from Wastewater, *Chemical Engineering Journal*, 132 (2007) 299-309.
- [155] Alka Shukla, Yu-Hui Zhang, P. Dubey, J.L. Margrave, Shyam S. Shukla, The Role of Sawdust in the Removal of Unwanted Materials from Water, *Journal of Hazardous Materials*, 95 (2002) 137-152.
- [156] Kaustubha Mohanty, Mousam Jha, B.C. Meikap, M.N. Biswas, Removal of chromium (VI) from dilute aqueous solutions by activated carbon developed from *Terminalia arjuna* nuts activated with zinc chloride, *Chemical Engineering and Science*, 60 (2005) 3049-3059.
- [157] Minaxi B. Lohani, Amarika Singh, D.C. Rupainwar and D.N. Dhar, Studies on efficiency of guava (*Psidium guajava*) bark as bioadsorbent for removal of Hg (II) from aqueous solutions, *Journal of Hazardous Materials*, 159 (2008) 626-629.

- [158] V.K. Garg, Renuka Gupta, Rakesh Kumar and R.K. Gupta, Adsorption of chromium from aqueous solution on treated sawdust, *Bioresour. Technol.* 92 (2004) 79-81.
- [159] Duygu Ozdes, Ali Gundogdu, Baris Kemer, Celal Duran, Hasan Basri Senturk, Mustafa Soylak, Removal of Pb(II) Ions from Aqueous Solution by a Waste Mud from Copper Mine Industry: Equilibrium, Kinetic and Thermodynamic study *Journal* of Hazardous Materials, 166 (2009) 1480-1487.
- [160] Vandana Singh, Stuti Tiwari, Ajit Kumar Sharma, Rashmi Sanghi, Removal of Lead from Aqueous Solutions using *Cassia grandis* Seed Gum-graftpoly(methylmethacrylate), *Journal Colloidal and Interface Science*, 316 (2007) 224-232.
- [161] H. L. H. Chong, P. S. Chia and M. N. Ahmad The adsorption of heavy metal by Bornean oil palm shell and its potential application as constructed wetland media, *Bioresource Technology*, 130, (2013) 181–186.
- [162] W. T. Tan, S. T. Ooi and C. K. Lee, Removal of chromium (VI) from solution by coconut husk and palm pressed fibres, *Environmental Technology*, 14, (1993), 277–282.
- [163] Alomá I, Martín-Lara MA, Rodríguez IL, Blázquez G, Calero M, Removal of nickel (II) ions from aqueous solutions by biosorption on sugarcane bagasse. Journal of Taiwan Institute of Chemistry, 43, (2012) 275–281.
- [164] G. S. Agarwal, Hitendra Kumar Bhuptawat, Sanjeev Chaudhari, Biosorption of Aqueous Chromium(VI) by *Tamarindusindica* Seeds, *Bioresource Technology*, 97 (2006) 949-956.
- [165] X.H. Lu, X. Huang, S. L. Xie and T. Zhai, C.S. Wang, P. Zhang, M. H. Yu, W. Li, C. L. Liang and Y. X. Tong, Controllable Synthesis of Porous Nickel Cobalt Oxide Nano-sheets for Supercapacitors, *Journal of Material Chemistry* 22 (2012) 13357–13364.
- [166] D. P. Dubal, G. S. Gund, R. Holze, H. S. Jadhav and C. D. Lokhande, Park CJ Surfactant-assisted Morphological Tuning of Hierarchical CuO Thin Films for Electrochemical Supercapacitors, *Dalton Transactions*, 42 (2013) 6459–6467.

- [167] P. Saha, S. Chowdhury, S. Gupta, Kumal, Insight into Adsorption Equilibrium, Kinetics and Thermodynamics of Malachite Green onto Clayey Soil of Indian Origin, *Journal of Environmental Chemistry and Engineering*, 165 (2012) 874–882.
- [168] Runping Han, Jinghua Zhang, Weihua Zou, Jie Shi, Hongmin Liu, Equilibrium Bisotherm for Lead Ion on Chaff, *Journal of Hazardous Materials*, 125, (2005) 266-271.
- [169] D. W. Smith, Dasant, Ionic Hydratio Enthalpies, *Journal of Chemical Education*, 54(9) (1977), 540- 542.
- [170] H. D. Doan, A. Lohi, V. B. H. Dang and T. Dang-Vu, Removal of Zn⁺² and Ni⁺² by Adsorption in a Fixed-bed of Wheat Straw. *Process Safety and Environmental Protection*. 86 (2008) 259–267.
- [171] Prachi Kakkar, Balaraman Madhan and Ganesh Shanmugam, Extraction and Characterization of Keratin from Bovine Hoof: A Potential Material for Biomedical Applications, Springer Plus, 3 (596) (2014) 1-9.
- [172] Cibele Rosana Ribeiro de Castro Lima, Mariana Mandelli de Almeida, Maria Vale´ria Robles Velasco and Jivaldo do Rosa´rioMato, Thermoanalytical Characterization Study of Hair from Different Ethnicities, *Journal of Thermal Analytical Calorimetry*, 123, (2016) 2321–2328.
- [173] Mutasim Khalil, Co-precipitation in Aqueous Solution Synthesis of Magnetite Nanoparticles using Iron (III) salts as Precursors, *Arabian Journal of Chemistry*, 8 (2) (2015) 279-284.
- [174] V. Ranjithkumar, A. Nizarul Hazeen, M. Thamilselvan and S. Vairam, Magnetic Activated Carbon-Fe₃O₄Nanocomposites—Synthesis and Application in the Removal of Acid Yellow Dye 17 from Water, *Journal of Nanoscience and Nanotechnology*, 14 (XX) (2014) 1–11.
- [175] Mahmoud Goodarz Naseri, Halimah Mohamed Kamari, Arash Dehzangi, Ahmad Kamalianfar and Elias B. Saion, Fabrication of a Novel Chromium-iron Oxide (Cr₂Fe₆O₁₂) Nanoparticles by Thermal Treatment Method, *Journal of Magnetism and Magnetic Materials*, 389 (2015) 113–119.

- [176] A. Pradeep, P. Priyadharsini and G. Chandrasekaran, Sol– gel Route of Synthesis of Nanoparticles of MgFe₂O₄ and XRD, FTIR and VSM study, *Journal of Magnetism and Magnetic Materials*, 320 (2008) 2774–2779.
- [177] Xiangyu Jin, Lu Lu, Haibo Wu, Qinfei Ke, Hong Wang, Duck Feather/Nonwoven Composite Fabrics for Removing Metals Present In Textile Dyeing Effluents, *Journal of Engineered Fibers and Fabrics*, 8 (3) (2013) 89-96.
- [178] O.S. Olokode, S.O. Fakolujo, P.O. Aiyedun, Z.O. Jaji, F.T. Owoeye and B.U. Anyanwu, Experimental Study on the Morphology of Keratin Based Material for Asbestos Free Brake Pad, *Journal of Basic & Applied Sciences*, 8 (2012) 302-308.
- [179] S. A. Kahani, M. Hamadanian, and O. Vandadi, AIP Conference Proceedings, 929, 183 (2007).
- [180] L. Zheng, ,W. Su, Z. Qi, Y. Xu and M. Zhou, Synthesis of Nitrogen-Doped Porous Carbon Nanofibers as an Efficient Electrode Material for Supercapacitors Nanotechnology, 6 (8) (2012) 7092–7102.
- [181] P. Laokul, V. Amornkitbamrung, S. Seraphin and S. Maensiri, Characterization and Magnetic Properties of Nanocrystalline CuFe2O4, NiFe2O4, ZnFe2O4 Powders Prepared by the Aloevera extract solution, *Current Applied Physics*,11 (2011) 101–108.
- [182] R. Y. Hong, T. T. Pan, Y. P. Han, H. Z. Li, J. Ding, and S. Han, Magnetic field synthesis of Fe₃O₄ nanoparticles used as a precursor of ferrofluids *Journal of Magnetic and Magnetism Materials*, 310 (2007) 37.
- [183] W. Wubishet Gezahegn, A.Srinivasulu, B. Aruna, S. Banerjee, M. Sudarshan, P.V. Lakshmi Narayana and A.D.P. Rao, Study of Heavy Metals Accumulation in Leafy Vegetables of Ethiopia, *Journal of Environmental Science, Toxicology and Food Technology*, 11 (5) (2017) 57-68.
- [184] Murat Yabanli, Aykut Yozukmaz and Fatma Sel, Heavy Metal Accumulation in the Leaves, Stem and Root of the Invasive Submerged Macrophyte *Myriophyllumspicatum L. (Haloragaceae)*: an example of Kadin Creek (Mugla, Turkey), *Brazilian Archives of Biology and Technology*, 57 (3) (2014) 434- 440.