

Bibliography

- Abadía, J., A-F. López-Millán, A. Rombolá and A. Abadía, 2002. Organic acids and Fe deficiency: a review. *Plant and Soil*, 241: 75-86.
- APHA, AWWA, WEF. 1995. Standard methods for the examination of water and wastewater, 19th ed. APHA, Washington, DC.
- ASTM. 1990. American Society for Testing and Materials, vol 11.01. Washington. D1971-91.
- Axtell, N.R., S.P.K. Sternberg and K. Claussen, 2003. Lead and nickel removal using *Microspora* and *Lemna minor*. *Bioresource Technology*, 89: 41-48.
- Baig, T.H., A.E. Garcia, K.J. Tiemann and J.L. Gardea-Torresdey, 1999. Adsorption of heavy metal ions by the biomass of *Solanum elaeagnifolium* (silverleaf night-shade). *Proceedings of the 1999 Conference on Hazardous Waste Research*, 131-142.
- Batty, L.C., A.J.M. Baker and B.D. Wheeler, 2002. Aluminium and phosphate uptake by *Phragmites australis*: the role of Fe, Mn and Al root plaques. *Annals of Botany*, 89: 443-449.
- Boyd, C.E., 1976. Accumulation of dry matter, nitrogen, and phosphorus by cultivated water hyacinths. *Econ. Bot.*, 30: 51-56.
- Brennan, M.A. and M.L. Shelley, 1999. A model of uptake, translocation, and accumulation of lead (Pb) by maize for the purpose of phytoextraction. *Ecological Engineering*, 12: 271-297.
- Britez, R.M., T. Watanabe, S. Jansen, C.B. Reissmann and M. Osaki, 2002. The relationship between aluminium and silicon accumulation in leaves of *Faramea marginata* (Rubiaceae). *New Phytologist*, 156: 437-444.
- Carpenter, S.R. and D.M. Lodge, 1986. Effects of submersed macrophytes on ecosystem processes. *Aquatic Botany*, 26: 341-370.
- Chaney, R.L., M. Malik, Y.M. Li, S.L. Brown, E.P. Brewer, J.S. Angle and A.J.M. Baker, 1997. Phytoremediation of soil metals. *Current Opinion in Biotechnology*, 8: 279-284.
- Chua, H., 1998. Bio-accumulation of environmental residues of rare earth elements in aquatic flora *Eichhornia crassipes* (Mart.) Solms in Guangdong Province in China. *The Science of the Total Environment*, 214: 79-85.
- Cocker, K.M., D.E. Evans and M.J. Hodson, 1998. The amelioration of aluminium toxicity by silicon in higher plants: solution chemistry or an in planta mechanism? *Physiologia Plantarum*, 104: 608-614.
- Cooley, T.N. and D.F. Martin, 1977. Factors affecting the distribution of trace elements in aquatic plants - water hyacinth. *Journal of Inorganic and Nuclear Chemistry*, 39: 1893-1896.

Bibliography

- Cooley, T.N. and D.F. Martin, 1980. Factors affecting the distribution of trace elements in aquatic plants – success and limitations of the coordination model. *Journal of Inorganic and Nuclear Chemistry*, 42: 151-153.
- Cooley, T.N., D.F. Martin, W.C. Durden, Jr. and B.D. Perkins, 1979. A preliminary study of metal distribution in three waterhyacinth biotypes. *Water Research*, 13: 343-348.
- Cramer, M.D. and C.H.A. Titus, 2001. Elevated root zone dissolved inorganic carbon can ameliorate aluminium toxicity in tomato seedlings. *New Phytologist*, 152: 29-39.
- Dahmani-Muller, H., F. Van Oort, B. Gelie. M. Balabane, 2000. Strategies of heavy metal uptake by three plant species growing near a metal smelter. *Environmental Pollution*, 109:231-238.
- Darkó, É., F. Bakos, É. Szakács, S. Dulai and B. Barnabás, 2002. Long-term phytotoxic effects of aluminium on Al susceptible and Al-tolerant genotypes of wheat selected from microspores. *Proceedings of the 7th Hungarian Congress on Plant Physiology*, 2002, 87-88.
- DCNR (Department of Conservation and Natural Resources, 1995. *Blue-Green Algae*, Second Edition.
- De Alwis, A., 2002. Biogas – a review of Sri Lanka's performance with a renewable energy technology. *Energy for Sustainable Development*, 6: 30-37.
- Denkhaus, E. and K. Salnikow, 2002. Nickel essentiality, toxicity, and carcinogenicity. *Critical Reviews in Oncology/Hematology*, 42: 35-56.
- Dushenkov, V., P.B.A.N. Kumar, H. Motto and I. Raskin, 1995. Rhizofiltration: the use of plants to remove heavy metals from aqueous streams. *Environmental Science and Technology*, 29: 1239-1245.
- Etherington, J.R., 1975. *Environment and Plant Ecology*. John Wiley and Sons, London.
- Garbisu, C. and I. Alkorta, 2001. Phytoextraction: a cost-effective plant-based technology for the removal of metals from the environment. *Bioresource Technology*, 77: 229-236.
- Gardea-Torresdey, J.L., K.J. Tiemann, J.H. Gonzalez, I. Cano-Aguilera and J.A. Henning, 1995. Ability of *Medicago sativa* (alfalfa) to remove nickel ions from aqueous solution. *Proceedings of the 10th Annual Conference on Hazardous Waste Research*, 239-248.
- Garg, S.K., 1979. *Environmental Engineering (Vol. I) – Water Supply Engineering*. Khanna Publishers, Delhi, India.
- Gonnelli, C.G., F. Galardi and R. Gabbrielli, 2001. Nickel and copper tolerance and toxicity in three Tuscan populations of *Silene paradoxa*. *Physiologia Plantarum*, 113: 507-514.

Bibliography

- Gopal, B., 1987. Water Hyacinth-Aquatic Plant Studies 1. Elsevier Science Publishers B.V., Amsterdam, The Netherlands.
- Groudev, S.N., S.G. Bratcova and K. Komnitsas, 1999. Treatment of waters polluted with radioactive elements and heavy metals by means of a laboratory passive system. Minerals Engineering, 12: 261-270.
- Groudeva, V.I., S.N. Groudev and A.S. Doycheva, 2001. Bioremediation of waters contaminated with crude oil and toxic heavy metals. International Journal of Mineral Processing, 62: 293-299.
- Gumbrecht, T., 1993a. Nutrient removal processes in freshwater submersed macrophyte systems. Ecological Engineering, 2: 1-30.
- Gumbrecht, T., 1993b. Nutrient removal capacity in submersed macrophyte pond system in a temperate climate. Ecological Engineering, 2: 49-61.
- Gunawardhana, W. D. D. H., M.W. Jayaweera and J.C. Kasturiarachchi. 2002. Heavy metal levels of groundwater in Ratmalana Moratuwa industrial area: a comprehensive survey carried out in 2002. Paper presented at the Engineering Research Unit (ERU) Symposium 2002, University of Moratuwa, Sri Lanka.
- Gurzau, E.S., C. Neagu and A.E. Gurzau, 2003. Essential metals – case study on iron. Ecotoxicology and Environmental Safety, 56: 190-200.
- Hale, K.L., H.A. Tufan, I.J. Pickering, G.N. George, N. Terry, M. Pilon and E.A.H. Pilon-Smits, 2002. Anthocyanins facilitate tungsten accumulation in *Brassica*. Physiologia Plantarum, 116: 351-358.
- Hall, D. O., 1980. Biological and agricultural systems: an overview. In: A. San Pietro (ed.) Biochemical and Photosynthetic Aspects of Energy Production. Academic Press, New York, pp. 1-30.
- Heim, A., J. Luster, I. Brunner, B. Frey and E. Frossard, 2000. Effects of aluminium treatment on Norway spruce roots: aluminium binding forms, element distribution, and release of organic substances. Plant and Soil, 216: 103-116.
- Ingole, N.W. and A.G. Bhole, 2001. Eradication and utilization of water hyacinth (*Eichhornia crassipes*) in the field of Environmental Engineering – a state of art. Indian Water Resources, 37-55.
- Ingole, N.W. and A.G. Bhole, 2003. Removal of heavy metals from aqueous solution by water hyacinth (*Eichhornia crassipes*). Journal of Water Supply: Research and Technology – AQUA, 52: 119-128.
- Jones, D.L., 1998. Organic acids in the rhizosphere – a critical review. Plant and Soil, 205: 25-44.

Bibliography

- Kasturiarachchi, J.C., M.W. Jayaweera, P.U.D. Fernando, R.K. Kularatne, W.K. Hirimburegama and S.L.J. Wijeyekoon, 2003. Removal of nitrogen and phosphorus from wastewaters by phytoremediation using water hyacinth (*Eichhornia crassipes*). Paper presented at the Engineering Research Unit (ERU) Symposium 2003, University of Moratuwa, Sri Lanka.
- Kay, S.H., W.T. Haller and L.A. Garrard, 1984. Effects of heavy metals on water hyacinths (*Eichhornia crassipes* (Mart.) Solms). *Aquatic Toxicology*, 5: 117-128.
- Kelley, C., A.J. Curtis, J.K. Uno and C.L. Berman, 2000. Spectroscopic studies of the interaction of Eu (III) with the roots of water hyacinth. *Water, Air, and Soil Pollution*, 119: 171-176.
- Knipling, E. B., S. H. West and W. T. Haller, 1970. Growth characteristics, yield potential and nutritive content of water hyacinth. *Proc. Soil Crop Sci. Soc. Fla.*, 30, 51-63.
- Kosegarten, H. and H-W. Koyro, 2001. Apoplastic accumulation of iron in the epidermis of maize (*Zea mays*) roots grown in calcareous soil. *Physiologia Plantarum*, 113: 515-522.
- Krämer, U., J.D. Cotter-Howells, J.M. Charnock, A.J.M. Baker and J.A.C. Smith, 1996. Free histidine as a metal chelator in plants that accumulate nickel. *Nature*, 379: 635-638.
- Kumar, A. and S.S. Purohit, 1998. *Plant Physiology – Fundamental and Applications*. Agro Botanica, Bikaner, India, pp. 166-178.
- Kumar, P. B. A. N., V. Dushenkov, H. Motto and I. Raskin, 1995. Phytoextraction : the use of plants to remove heavy metals from soils. *Environmental Science and Technology*, 29: 1232-1238.
- Lasat, M.M., 2002. Phytoextraction of toxic metals: a review of biological mechanisms. *Journal of Environmental Quality*, 31: 109-120.
- Lin, Y.F., S.R. Jing, D.Y. Lee and T.W. Wang, 2002. Nutrient removal from aquatic wastewater using a constructed wetlands system. *Aquaculture*, 209:169-184.
- Low, K.S., C.K. Lee and K.K. Tan, 1995. Biosorption of basic dyes by water hyacinth roots. *Bioresource Technology*, 52: 79-83.
- Lytle, C.M., F.W. Lytle and N. Terry, 1997. X-ray spectroscopy study of a wetland plant-based heavy metal detoxification mechanism. In: 1997 SSRL Activity Report, pp. 259-262.
- Lytle, C.M., F.W. Lytle, N. Yang, J.-H. Qian, D. Hansen, A. Zayed and N. Terry, 1998. Reduction of Cr (IV) to Cr (III) by wetland plants: potential for in situ heavy metal detoxification. *Environmental Science and Technology*, 32: 3087-3093.

Bibliography

- MacFarlane, G.R. and M.D. Burchett, 2002. Toxicity, growth and accumulation relationships of copper, lead and zinc in the grey mangrove *Avicennia marina* (Forsk.) Vierh, marine Environmental Research, 54:65-84.
- Matagi, S.V., D. Swai and R. Mugabe, 1998. A review of heavy metal removal mechanisms in wetlands. African Journal for Tropical Hydrobiology and Fisheries, 8: 23-35.
- Mays, P.A. and G.S. Edwards, 2001. Comparison of heavy metal accumulation in a natural wetland and constructed wetlands receiving acid mine drainage. Ecological Engineering, 16: 487-500.
- McGrath, S.P. and F.-J. Zhao, 2003. Phytoextraction of metals and metalloids from contaminated soils. Current Opinion in Biotechnology, 14: 277-282.
- Meagher, R.B., 2000. Phytoremediation of toxic elemental and organic pollutants. Current Opinion in Plant Biology, 3: 153-162.
- Mejáre, M. and L. Bülow, 2001. Metal-binding proteins and peptides in bioremediation and phytoremediation of heavy metals. TRENDS in Biotechnology, 19: 67-73.
- Metcalf and Eddy, 1995. Wastewater Engineering – Treatment, Disposal and Reuse. Third Edn. Tata McGraw-Hill Publishing Company Limited, New Delhi, India.
- Miner, J., J. W. Wooten and J. D. Dodd, 1971. Water hyacinths to further treat anaerobic lagoon effluent. In: Livestock Waste Management and Pollution Abatement. Proc. Int. Symp. On Livestock Wastes. Am. Soc. Agric. Eng. Proc., St. Joseph, Mich. pp. 170-173.
- Mitsch, W. J., 1977. Water hyacinth (*Eichhornia crassipes*) nutrient uptake and metabolism in a north-central Florida marsh. Arch. Hydrobiol., 81: 188-210.
- Morikawa, H. and O.C. Erkin, 2003. Basic processes in phytoremediation and some applications to air pollution control. Chemosphere, 52: 1553-1558.
- Mossor-Pietraszewska, T., 2001. Effect of aluminum on plant growth and metabolism. Acta Biochimica Polonica, 48: 673-686.
- Mulligan, C.N., R.N. Yong and B.F. Gibbs, 2001. Remediation technologies for metal-contaminated soils and groundwater: an evaluation. Engineering Geology, 60: 193-207.
- Ornes, W. H. and D. L. Satton, 1975. Removal of phosphorus from static sewage effluent by water hyacinth. Hyacinth Control J., 13: 56-58.
- Pilon-Smits, E. and M. Pilon, 2002. Phytoremediation of metals using transgenic plants. Critical Reviews in Plant Sciences, 21: 439-456.
- Poorter, H. and O. Nagel, 2000. The role of biomass allocation in the growth response of plants to different levels of light, CO₂, nutrients and water: a quantitative review. Australian Journal of Plant Physiology, 27: 595-607.

Bibliography

- Raskin, I., P.B.A.N. Kumar, S. Dushenkov and D.E. Salt, 1994. Bioconcentration of heavy metals by plants. *Current Opinion in Biotechnology*, 5: 285-290.
- Reddy, K. R. and D. L. Sutton, 1984. Water hyacinth for water quality improvements and biomass production. *J. Environ. Quality*, 13: 1-8.
- Reddy, K. R. and J. C. Tucker, 1983. Effect of nitrogen source on productivity and nutrient uptake of water hyacinth (*Eichhornia crassipes*). *Econ. Bot.*, 37: 236-246.
- Reddy, K. R. and P. D. Sacco, 1981. Decomposition of water hyacinth in agricultural drainage water. *J. Environ. Quality*, 10: 228-234.
- Richardson, C. J., 1985. Mechanisms controlling phosphorus retention capacity in freshwater wetlands. *Science*, 228: 1424-1427.
- Robinson, B.H., E. Lombi, F.J. Zhao and S.P. McGrath, 2003. Uptake and distribution of nickel and other metals in the hyperaccumulator *Berkheya coddii*. *New Phytologist*, 158: 279-285.
- Rogalla, H. and V. Römhild, 2002. Role of leaf apoplast in silicon-mediated manganese tolerance of *Cucumis sativus* L. *Plant, Cell and Environment*, 25: 549-555.
- Rogers, H. H. and D. E. Davis, 1972. Nutrient removal by water hyacinth. *Weed Sci.*, 20: 423-428.
- Salifoglou, A., 2002. Synthetic and structural carboxylate chemistry of neurotoxic aluminum in relevance to human diseases. *Coordination chemistry Reviews*, 228: 297-317.
- Salisbury, F. B. and C. W. Ross, 1990. *Plant Physiology*. Wadsworth Publishing Company, Belmont. CA.
- Santos-Burgoa, C., C. Rios, L.A. Mercado, R. Arechiga-Serrano, F. Cano-Valle, R.A. Eden-Wynter, J.L. Texcalac-Sangrador, J.P. Villa-Barragan, Y. Rodriguez-Agudelo and S. Montes, 2001. Exposure to manganese: health effects on the general population, a pilot study in Central Mexico. *Environmental Research Section A*, 85: 90-104.
- Sato, H. and T. Kondo, 1981. Biomass production of water hyacinth and its ability to remove inorganic minerals from water. I. Effect of the concentration of culture solution on the rate of the plant growth and nutrient uptake. *Japan Journal of Ecology*, 31: 257-267.
- Sattelmacher, B., 2001. The apoplast and its significance for plant mineral nutrition. *New Phytologist*, 149: 167-192.
- Schickler, H. and H. Caspi, 1999. Response of antioxidative enzymes to nickel and cadmium stress in hyperaccumulator plants of the genus *Alyssum*. *Physiologia Plantarum*, 105: 39-44.

Bibliography

- Schneider, I.A.H. and J. Rubio, 1999. Sorption of heavy metal ions by the nonliving biomass of freshwater macrophytes. *Environmental Science and Technology*, 33: 2213-2217.
- Soltan, M.E. and M.N. Rashed, 2003. Laboratory study on the survival of water hyacinth under several conditions of heavy metal concentrations. *Advances in Environmental Research*, 7: 321-334.
- Town, R.M. and M. Filella, 2002. Size fractionation of trace metal species in freshwaters: implications for understanding their behaviour and fate metal size fractionation and speciation. *Re/Views in Environmental Science & Bio/Technology*, 1: 277-297.
- USDA, 1999. Agricultural Phosphorus and Eutrophication. ARS-149.
- USEPA, 2001. Ground Water Issue. United States Environmental Protection Agency.
- Verma, R., S.P. Singh and K.G. Raj, 2003. Assessment of changes in water-hyacinth coverage of water bodies in northern part of Bangalore city using temporal remote sensing data. *Current Science*, 84: 795-804.
- Vesk, P. A., C. E. Nockolds, and W. G. Allaway, 1999. Metal location in water hyacinth roots from an urban wetland. *Plant Cell and Environment*, 22:149-158.
- Vesk, P.A. and W.G. Allaway, 1997. Spatial variation of copper and lead concentrations of water hyacinth plants in a wetland receiving urban run-off. *Aquatic Botany*, 59: 33-44.
- Vymazal, J., 1995. *Algae and Element Cycling in Wetlands*. Lewis Publishers, USA.
- Waite, T.D., 2002. Challenges and opportunities in the use of iron in water and wastewater treatment. *Re/Views in Environmental Science & Bio/Technology*, 1: 9-15.
- Yamaguchi, N.U., A.C. Scheinost and D.L. Sparks, 2001. Surface-induced nickel hydroxide precipitation in the presence of citrate and salicylate. *Soil Science Society of America Journal*, 65: 729-736.
- Ye, Z.H., S.N. Whiting, J.H. Qian, C.M. Lytle, Z.-Q. Lin and N. Terry, 2001a. Trace element removal from coal ash leachate by a 10-year-old constructed wetland. *Journal of Environmental Quality*, 30: 1710-1719.
- Ye, Z.H., S.N. Whiting, Z.-Q. Lin, C.M. Lytle, J.H. Qian and N. Terry, 2001b. Removal and distribution of iron, manganese, cobalt, and nickel within a Pennsylvania constructed wetland treating coal combustion by-product leachate. *Journal of Environmental Quality*, 30: 1464-1473.
- Zhu, Y.L., A.M. Zayed, J-H. Qian, M. de Souza and N. Terry, 1999. Phytoaccumulation of trace elements by wetlands plants II, water hyacinth. *Journal of Environmental Quality*, 28: 339-344.

