

6.0 REFERENCES

- Aaronson, S., Dhawale, S.W and Patni, N.J.1977. The cell content and secretion of water soluble vitamins by several freshwater algae. *Arch. Microbiol.* 112: 57-59.
- Abdel-Mawgoud, A.M. 2005. Physiological and ecological studies on the algal flora isolated from soils at Qena regions. *M.Sc. Thesis, Fac. of Sci. South Valley Univ., Qena, Egypt.* 199.
- Abd El-Migeed, A.A., El-Sayed A.B and Hassan, H.S.A. 2004. Growth enhancement of olive transplants by broken cells of fresh green algae as soil application. *Minufia J. Agric. Res.* 29(3): 723-737.
- Abeliovich, A. 1986. Algae in wastewater oxidation ponds. In: Richmond, A. (Ed.), *Handbook of Micro algal Mass Culture.* CRC Press, *Boca Raton, FL.* 331–338.
- Abou-Wily, H., Abou-Setta, M.M., Nigg, H and Mallory, L.L. 1991. Growth response of fresh water algae, *Anabaena flos-aquae* and *Selenastrum capricornutum* to atrazine and hexazinone herbicides. *Bull. Environ. Contam. Toxicol.* 46:223-229.
- Adewoye, S.O., Fawole, O.O and Owolabi, O.D. 2005. Toxicity of cassava a wastewater effluents to African catfish: *Clarias gariepinus*. *Ethiop. J. Sci.* 28: 189-194.
- Adhikary, S.P and Sahu, J. 1988. Ecophysiological studies on ensheathed blue-green algae in a distillery effluent polluted area. *Env. Ecol.* 6: 915-918.
- Adhikary, S.P. 1985. Occurrence of ensheathed blue green algae in the sponge Iron factory effluent polluted area. *J. O. Bot. Soc.* 7: 18-23.
- Adraino, D. C., Chang, A.C., Pratt, P.E and Sharpless, R. 1973. Effect of application of dairy manure on germination and emergence of some selected crops. *J. Environ. Qual.* 3: 396-399.
- Agarwal, P. K., Singh, V. P., Kumar, D and Sharma, R.1980. Effect of effluent discharged by oxalic acid factory on growth and rate of production of wheat crop under varying level of N, P, K. Third All India Bot. Conference. *J. Indian Bot. Soc. Sect. X Pollution.*59.
- Ahluwalia, A. S and Kaur, M. 1989. Nickel toxicity on growth and heterocyst formation in a nitrogen fixing blue green alga. *Phykos.* 28: 196-200.
- Aiyer, R.S. 1965. Comparative algological studies in rice fields in Kerala state. *Agric. Res. J. Kerala* 3:100-106.

- Aksu, Z and Tezer, S. 2005. Biosorption of reactive dyes on the green alga *Chlorella vulgaris*. *Process Biochem.* 40:1347–1361.
- Al-Hasan, R.H., Khanafer, M., Eliyas, M and Radwan, S.S. 2001. Hydrocarbon accumulation by Picocyanobacteria from the Arabian Gulg. *J. Applied Microbial.* 91: 533-540.
- Allen, H. E. 2002. Bioavailability of metals in terrestrial ecosystems: Importance of partitioning for bioavailability to invertebrates, microbes and plants, *Society of Environ. Toxicol. and Chemi.* (SEIAC), Pensacola, la.
- Amber Cain. 2004. The Use of Cyanobacteria for the Biosorption of Mercury (II) Ion. Iowa State University.1-68.
- Amudha, P and Mahalingam, S. 1999. Studies on the effect of dairy effluent on survival feeding energetics of *Cyprinus carpio*. *J Environ. Biol.* 20 (3): 275-278.
- Amudha, P., Nagendran, R and Mahalingam, S. 1997. Studies on the effect of Dairy effluent on the behaviour of *Cypreaus carpio* (Cyprinidae) *J. Environ. Biolo.* 415-448
- Anand, N. 1998. Indian Freshwater Microalgae. Bishen Singh Mahendra Pal Singh, Dehra Dun. 1-94.
- Andrew K. Lee, David M. Lewis and Peter J. Ashman. 2009. Microbial flocculation, a potentially low-cost harvesting technique for marine microalgae for the production of biodiesel. *J. Appl Phycol.* 21: 559–567.
- Aneja, K.R. 1996. Experiments in microbiology, plant pathology, tissue culture, and mushroom cultivation (2nd ed). Wishwa Prakashan, New Delhi.
- Anoop Singh, S.B., Agrawal, J.P and RaiPratibha Singh, N. 2002. *J. Environ Bio.* 28(3): 283-288.
- AOAC. 1995. Official methods of analysis, 16th ed. Association of Official Analytical Chemists. Arlington, VA, USA.
- APHA. American Public Health Association. 2005. Standard method for the examination of water and wastewater, Washington, D.C, USA 21st edition.
- Arnon, D.T. 1949. Copper enzymes in isolated chloroplast. Polyphenol oxidase in *Beta vulgaris*. *Plant Physiol.* 24 (1-5): 103-118
- Arora, S., Chopra, A. K., Prasad, G., Joshi, N and Prasad, G. 2006. Characteristics of Mahalakshmi sugar mill effluent and its impact on seed germination on certain agricultural crops. *J. Appl. Bio. Sci.* 32: 115 -118.

- Aziz, M.A., Ng, W.J. 1993. Industrial wastewater treatment using an activated algae-reactor. *Water Sci. Technol.* 28: 71–76.
- Azeez, A and Banerjee, D. K. 1991. Nickel uptake and toxicity in cyanobacteria. *Toxicological and Environmental Chemistry.* 30 (1-2): 43-50.
- Balasubramanian, Bharathiraja, Jayaraman and Jayamuthunagai. 2012. Integrated dairy plant effluent treatment and production of biomass and lipids using micro algae *Chlorella vulgaris*. *International Journal of Chemical Reactor Engineering.* 10: (1): ISSN (Online) 1542-6580, DOI:10.1515/1542-6580.2658.
- Barnes, H and Black Stock, J. 1973. Estimation of lipids in marine animals and tissue: Detailed investigation of the sulphophosphovanillin method for 'total lipid'. *J.Exp.Mar.Bio. Ecol.* 12:103-118.
- Barton, J., Kuritz, W., O'Connor, T., Ma, L. E., Maskarinec, M.P and Davison, C.Y. B. H. 2004. Reductive transformation of methyl parathion by the cyanobacterium *Anabaena* sp. strain PCC7120. *Appl Microbiol Biotechnol.* 65: 330-335.
- Bartosz, G. 1997. Oxidative stress in plants. *Acta. Physiol. Plant.* 19: 641-647.
- Baruah, B.K.D and Das, M. 1996. Sources and characteristics of paper mill effluent. *Environ and Ecol.* 14(3): 686-689.
- Basavarajappa, R.1992. Response of cotton cv. Abaditha (*Gossypium hirsutum*, L.) to soil and foliar application of micronutrients under rain fed conditions. M.Sc. (Agri).Thesis, Univ. Agric. Sci., Dharwad.
- Bassam Mrayyana, Mohammed, N., Battikhi. 2005. Biodegradation of total organic carbons (TOC) in Jordanian petroleum sludge. *J. Hazardous materials.* B120. 127-134.
- Becker, E.W. 1994. Biotechnology and Microbiology. In Baddiley, J, Higgins, I.J and Potter, W.G. (eds.), *Microalgae*. Cambridge Univ. Press, Cambridge, NY.178-293.
- Becker,E.W.1988.Microalgae for human and animal consumption. In: M.A. Borowitzka and L.J. Borowitzka (Eds), *Micro-algal biotechnology*, Cambridge University Press, Cambridge. 222 – 256.
- Becker, E.W. 1983. Limitations of heavy metal removal from wastewater by means of algae. *Water Res.* 17 (4) : 459 – 466.
- Benedetti, S., Benvenuti, F., Pagilarani, S., Francogli, S., Scoglio, S and Canestran, F. 2004. Antioxidant properties of a novel phycocyanin extract from the blue green alga *Aphanizomenon flos-aquae*. *Life Sci.* 75(19):2353-2362.

- Benemann, J.R and Oswald, W.J. 1996. Systems and Economic Analysis of Microalgae Ponds for conversion of Carbon dioxide to Biomass. Pittsburgh Energy Technology Centre. Pittsburgh, PA, 201.
- Bergey, D.H., John, G and Holt, 1993. Bergey's manual of determinative bacteriology. American society for microbiology. Pub. Baltimore: Williams and Wilkins Co. 9th edition.
- Bergey, D.H and Buchanan, R.E. 1974. Bergey's manual of determinative bacteriology. American society for microbiology. Pub. Baltimore, Williams and Wilkins Co. 8th edition.
- Bewley, J and Black.1985. Physiology of development and germination, New York, Plenum Press.
- Bharagava, B.S and Chadha, K.L. 1988. Leaf nutrient guide for fruit and crops. Fertilizer news. The mango botany, production and uses. Univ. Florida, Homestead, Florida U S A. 175-201.
- Bhattacharjee, S and Mukherjee, A.K. 1994. Influence of cadmium and lead on physiological and biochemical responses of *Vigna unguiculata* (L.) Walp. Seedlings I. Germination behaviour, total protein, proline content and protease activity. *Poll. Res.* 13(3): 269-277.
- BIS. 2009. Tolerance limits for industrial effluents prescribed by Bureau of Indian Standards, IS 2490 (Part I), New Delhi, India
- Bitton, G. 1990. Wastewater Technology. Wiley-Liss, New York.
- Bjornsson, L., Murto, M., Jantsch, T.G and Mattiasson, B. 2001. Evaluation of new methods for the monitoring of alkalinity, dissolved hydrogen and the microbial community in anaerobic digestion. *Water Res.* 35 : 2833–2840.
- Bobmanuel, N.O.K., Gabriel, U.U and Edwerzor, I.K.E. 2006. Direct toxic assessment of treated fertilizer effluent to *Orichromis niloticus*, *Clarias gariepinus* and Cat fish hybrid (*Heterobranchus bidorsalis* X *Clarias gariepinus*). *African. J. Biotech.* 5: 635-645.
- Bonaventura, C and Johnson, F. M. 1997. Healthy Environments for Healthy People: Bio-remediation Today and Tomorrow. Environmental Health Perspectives. 105, Supplement 1.
- Boominathan, M., Sundararaman, M and Manoharan, C. 2007. Biodiversity of microbes in dairy effluent. *Poll. Res.* 26(2):271-276.
- Boominathan, M. 2005. Ph.D. Thesis, Bharathidasan University, Tiruchirapalli, Tamilnadu, India.

- Borowitzka and Borowitzka, L.J (Eds), 1988. Micro-algal biotechnology. Cambridge: Cambridge University. 477.
- Borowitzka, M. A. 1988. Vitamins and fine chemicals from microalgae. In: Borowitzka, M. A. and Borowitzka, L. J. (Ed.). *Microalgal Biotechno.* 153 – 196.
- Brown, F., Chuthbertsen, W.F.J and Fogg, G.E. 1956. Vitamin B12 activity of *Chlorella vulgaris* Beij and *Anabaena cylindrica*, Lemm. *Nature.* 177-188.
- Canizares-Villanueva, R.O., Dominguez, A.R., Cruz, M.S and Rios-Leal, E. 1995. Chemical composition of cyanobacteria grown in diluted, aerated swine wastewater. *Biores. Technol.* 51 (2):111-116.
- Canizares, R.O., Rivas, L., Montes, C., Dominguez, A.R., Travieso, L and Benitez, F. 1994. Aerated swine wastewater treatment with k-carrageenan-immobilized *Spirulina maxima*. *Bioresour Technol.* 47 : 89-91.
- Carlson, R. W and Drummond, R.A. 1978. Fish cough response – A method for evaluating quality of treated complex effluents. *Water Res.* 12: 1.
- Cerniglia, C.E., Vos Baalen, C and Gibson, D.T. 1980. Metabolism of naphthalene by the cyanobacterium *Oscillatoria* sp., strain. *J. Gen. Microbiol.* 116: 485-494.
- Cervantes, C., Campos-García, J., Devars, S., Gutiérrez-Corona, F., Loza-Tavera, H., Torres-Guzmán, J. C and Moreno-Sánchez, R. 2001. Interactions of chromium with microorganisms and plants. *FEMS Microb. Rev.* 25: 335–47.
- Chan, S.S., Chow, H and Wong, M.H. 1981. Microalgae as bioabsorbents for treating mixture of electroplating and sewage effluent. *Biomed-Environ-Sci.* 4(3): 250-61.
- Chan, K.Y., Wong, K.H and Wong, P.K. 1979. Nitrogen and phosphorus removal from sewage effluent with high salinity by *Chlorella salina*. *Environ Poll.* 18: 139-146.
- Chan, K.Y., Wong, K.H and Wong, P.K. 1977. Nitrogen and Phosphorous removal from sewage effluents with high Salinity of *Chlorella salina*, *Environ. Pollu.* 18: 139 -146.
- Chatzimichalakis, P. F., Samanidou, V.F., Verpoorte, R and Papadoyannis, I.N. 2004. “Development of a validated HPLC method for the determination of B-complex vitamins in pharmaceuticals and biological fluids after solid phase extraction,” *J. Separation Science.* 27: 1181-1188.
- Chaubey, M. 2001. Computer design of wastewater plant using fixed film bio reactor technology *J. Poll cont.* 17 (2): 206-215.

- Chauhan, M.S and Dikshit, A.K. 2006. Treatment options of distillery wastewater. *IJEP* 26 (5): 400-410.
- Cheblowshi, J and Coleman, J.E. 1986. Zinc and its role in enzymes. In: Metal ions in biological systems (Biological action of metal ions) Ed: Sigel, H, New York and Basal Marcel Dekker. 61-140.
- Chevalier, P., Proulx, D., Lessard, P., Vincent, W.F and de la Noüe. 2002. Nitrogen and phosphorus removal by high latitude mat forming cyanobacteria for potential use in tertiary wastewater treatment. *J.App.Phycol.* 12 : 105-112.
- Chevalier, P and De la Node, J. 1985. Efficiency of immobilized hyper concentrated algae for ammonium and orthophosphate removal from wastewaters, *Biotech. Lett.* 7 : 395-400.
- Cho, J.C and Kim, S.J. 2000. Increase in bacterial community diversity in subsurface aquifers receiving livestock wastewater input. *Appl.Environ.Microbiol.* 66 : 956-965.
- Choudhary. R., Saroha, A.E and Swarnkar, P.L. 2011. Effect of abscisic acid and hydrogen peroxide on antioxidant enzymes in *Syzygium cumini* plant. *J Food Sci Tech.* doi: 10.1007/s13197-011-0464-3.
- Chukwuand, L.O and Okhumale, B.O. 2009. Mode of joint action response to binary mixtures of three refined petroleum products by Nile tilapia, *Oreochromis niloticus* fingerlings. *Sci. Res. Essay.* 4: 806-811.
- Chuntapa, B., Powtongsook, S and Menasveta, P. 2003. Water quality control using *Spirulina platensis* in shrimp culture tanks. *Aquaculture.* 220 : 355-366.
- Cluis, C. 2004. Junk-greedy greens: Phytoremediation a new option for solid decontamination. *Biotech. Journal.* 2: 61-67.
- Colman, B. 1989. Photosynthetic carbon assimilation and the suppression of photorespiration in the cyanobacteria. *Aquat. Bot.* 34:211-231.
- Conforti, F., Loizzo, M.R., Statti, G.A and Menichini, F. 2005. Comparative radical scavenging and ant diabetic activities of methanolic extract and fractions from *Achillea ligustica*. *All. Biol Pharm Bull.* 28(9):1791-1794.
- Cote, R.P. 1976. The effects of petroleum refinery liquid wastes on aquatic life, with special emphasis on the Canadian environment. National Research Council of Canada. NRC Associate Committee on Scientific Criteria for Environmental Quality.
- Cristina, M., Monteiro., Paula M. L., Castro, F and Xavier Malcata. 2011. Biosorption of zinc ions from aqueous solution by the microalga *Scenedesmus obliquus*. *Environ Chem Lett.* 9:169-176.

- Cristina, M., Monteiro., Paula, M. L., Castro and Xavier Malcata, F. 2010. Cadmium Removal by Two Strains of *Desmodesmus pleiomorphus*. *Cells. Water Air Soil Pollut.* 208:17–27.
- Danielly de paiva magalhaes, Rodolfo Armando da cunha, Jose Augusto Albuquerque Dos Santos, Daniel For sin buss and Darcilio Fernandez Batista. 2007. Behavioral response of Zebra fish, *Danio rerio*, Hamilton 1822 to sub lethal stress by sodium hypo chloride ecotoxicological assay using an image analysis biomonitoring system. *Eco toxicol.* 16: 417-422.
- Das, A.K., Bera, M.K and Mohiuddin, M. 2001. Effect of different yield attributes on the productivity of wheat as influenced by growth regulators and bio-fertilizers. *Environ. Eco.*19:145–148.
- Dash, A.K and Mishra, P.C. 1999. Role of the blue-green alga *Westiellopsis prolifica* in reducing pollution load from paper mill wastewater. *Ind. J. Environ. Protect.* 19:1-5.
- Dashora, M.S and Gupta, R.S. 1978. Effect of chlorine and copper sulphate on growth, physiology of mixed culture of algae. *Ind. J. Environ. Hlth.* 20 (1): 50-61.
- de-Bashan, L.E and Bashan, Y. 2010. Immobilized microalgae for removing pollutants: Review of practical aspects. *Bioresour. Technol.* 101: 1611-1627.
- de-Bashan, L.E., Hernandez, J.P., Morey, T and Bashan, Y. 2004. Microalgae growth-promoting bacteria as “helpers” for microalgae: a novel approach for removing ammonium and phosphorus from municipal wastewater. *Water Res.* 38: 466-474.
- de-Bashan, L.E and Bashan, Y. 2004. Recent advances in removing phosphorus from wastewater and its future use as fertilizer (1997–2003). *Water Res*; 38:4222–4246.
- de-Bashan, L.E., Moreno, M., Herna´ndez, J.P and Bashan, Y. 2002. Removal of ammonium and phosphorus ions from synthetic wastewater by the microalgae *Chlorella vulgaris* co immobilized in alginate beads with the microalgae growth-promoting bacterium *Azospirillum brasilense*. *Water Res.* 36 : 2941-2948.
- de la Noue, J., Laliberte, G and Proulx, D.1992. Algae and wastewater. *J Appl Phycol.* 4 : 247– 254.
- de la Noue, J and De Pauw, N. 1988. The potential of microalgal biotechnology: a review of production and uses of microalgae. *Biotechnol Adv.* 6: 725 –70.
- Demule, M.C.Z., Decaire, G.Z and Decano, M.S. 1996. Bioactive substances from *Spirulina platensis*. *Int. J. Exp. Biol.* 58: 93-96.

- Desikachary, T.V. 1959. Cyanophyta. Indian Council of Agricultural Research, New Delhi. 686.
- Dhamotharan, R., Murugesan, S., Sridharan, M.C and Smith Rose. 2009. Nutrient recycling by *Scytonema multiramosum* and *Pithophora polymorpha* from match factory effluent. *Biosciences, Biotechnology Research Asia*. 6 (1): 139-146.
- Dhamotharan, R., Murugesan, S and Sridharan, M.C. 2009. Biological decolorization and removal of metal from dye industry effluent by microalgae. *Biosciences, Biotechnology Research Asia*. 6 (1): 111-120.
- Dhamotharan, R., Manikandan, A and Murugesan, S. 2008. Biotreatment of sewage (Cooum) wastewater by Cyanobacteria. *Biosciences, Biotechnology Research Asia*. 5 (1): 349- 354.
- Dhamotharan, R., Murugesan, S and Yoganandam, M. 2008. Bioremediation of tannery effluent using Cyanobacterium. *Biosciences, Biotechnology Research Asia*. 4 (1): 201 -206.
- Dhanam, S. 2009. Effect of dairy effluent on seed germination, seedling growth and biochemical parameter in Paddy. *Botanical Res. International*. 2(2):61-63.
- Dhavale, D.M and Masurekar, V.P. 1986. Variations in the glucose and glycogen content in the tissue of *Scylla serrata* (Forsk.) under the influence of cadmium. *Toxicity Geobios*. 13: 139-142.
- Difco Manual, 1953. Difco Laboratories Inc., D'etrioit, Mich 9th edition.
- Doan, N.T., Rickards, R.W., Rothschild, J.M and Smith, G.D. 2000. Allelopathic actions of the alkaloid 12-*epi*-Hapalindole Eisonitrile and calothrixin A from cyanobacteria of the genera *Fischerella* and *Calothrix*. *J. Appl. Phycol*. 12: 409-416.
- Dokhan, R. 1953. Presence of free and combined arginine in marine algae. *Compt. Rend. Soc. Biol*. 147:1566-1568.
- Dollar, S.G., Bogle, I.R and Keenev, A.D. 1972. Paper mill sludge disposal on solids: Effects of the yield and mineral nutrition of oats (*Avena sativa* L.). *J. Environ. Qual*. 1:405-409.
- Drungkokkrud, N. 2002. Removal of cadmium and lead in aqueous solution by *Nostoc paludosum* and *Phormidium angustissimum*. Masters Degree Thesis, Mahidol University.
- Dubey, R., Vasistha, C.H., Tripathi, P and Tewari, S.D. 2001. Antifungal activities of three haptics against *Macrohomenia phaseolina*. *Indian Phytopathology*. 54:264-266.

- Dumas, A., De LaNoë J., Laliberte, G and Lessard, P. 1998. Biotreatment of fish farm effluents using the cyanobacterium *Phormidium bohneri*. *Aquacultural Engineering*. 17 : 57-68.
- El-Baky, H.H.A., El-Baz, F.K and El-Baroty, G.S. 2009. *Electron. J. Environ., Agricut. and Food Chem.* 8(11): 1099-1112.
- El-Nakip, N. A. 2004. Studies on the efficiency of blue-green algae as biofertilizers for some cultivated plants. M. Sc.Thesis Mansoura University. 194.
- El-Shimy., A.A and Ismail, A.G. 2007. Accumulation of amino acids in *Anabaena oryzae* in response to sodium chloride salinity. *J. Applied Sci. Res.* 3: 263-266.
- Fairchild, J.F., Ruessler, D.S and Carlson, A.R. 1998. Comparative sensitivity of five species of macrophytes and six species of algae to atrazine, metribuzin, alachlor and metolachlor. *Environ Toxicol Chem.* 17:1830-1834.
- Farias, W.R.L., Nazareth, R.A and Mourao, P.A.S. 2001. Dual effects of sulfated D-galactans from the red alga *Botryocladia occidentalis* thrombosis and inducing platelet aggregation. *Thromb. Haemost.* 86 : 1540-1546.
- Fatma, T., Sarada, R and Venkataraman, L.V. 1994. Evaluation of selected strains of *Spirulina* for their constituents. *Phykos.* 33: 89 – 97.
- Fattam, A and Shilo, M. 1984. *Phormidium* J-1. biofloculant production and activity. *Arch. Microbiol.* 139 : 421-425.
- Fay, P. 1983. The Blue-Greens, Arnold Publishers Ltd., London. 14.
- Fogg, G.E. 1975. Algal cultures and phytoplankton ecology. The University of Wisconsin Press, Wisconsin.
- Fogg, G.E. 1974. Nitrogen fixation in Algal Physiology and Biochemistry, W.D.P. Stewart (Ed.). Blackwell Scient, Publ, Oxford. 560-582.
- Fogg, G.E., Stewart, W.D.P., Fay, P and Walsby, A.E. 1973. The blue-green algae. Academic Press. Inc. (London) Ltd., London.
- Folch, J.M. Less and G.H.Stones Stanley.1957. A simple method for the isolation and purification of total lipids from animal tissue. *J.Biol.Chem.* 13(1):7-12.
- Gabriel, U.U and Okey, I.B. 2009. Effect of aqueous leaf extracts of *Lepidagathis alopecuroides* on the behaviours and mortality of hybrid cat fish (*Heterobranchus bidorsalis* X *Clarias gariepinus*) fingerlings. *Res. J. Appl. Sci. Eng. Tech.* 1 : 116-120.

- Galal, Y.G.M., Ghandour, I.A., Aly, S.S., Soliman, S and Gadalla, A. 2000. Non-isotopic method for the quantification of biological nitrogen fixation and wheat production under field conditions. *Biol. Fert. Soils*. 32: 47–51.
- Galal, H.R. 1998. Growth and some metabolic activities of freshwater algae under variable treatments. *Ph.D. Thesis, Fac. Sci. Qena. South Valley Univ. Egyp.* 328.
- Ganapathi, S.V. 1940. Some aspects of ecology of freshwater algae (with special reference to static waters). *J. Ecol.* 19:233-272.
- Garcia, J., Green, B and Oswald, W. 2006. Long term diurnal variations in contaminant removal in high rate ponds treating urban wastewater. *Bioresour. Technol.* 97 : 1709–1715.
- Gaur, N and Dhankhar, R. 2009. Removal of Zn^{+2} ions from aqueous solution using *Anabaena variabilis*: Equilibrium and Kinetic studies. *Int. J. Environ. Res.* 3(4):605-61.
- Gautam, D.D., Kumar, K and Bishnoi, S. 1992. Effect of dairy effluent in seed germination of Rabi and kharif crop plants. *J. Environ. Biol.* 13 : 7-12.
- Gersberg, R.M., Elkins, B.V., Lyon, S.R and Goldman, C.R.1986. Role of aquatic plants in wastewater treatment by artificial wetlands. *Water Res.* 20 : 363–368.
- Ghasemi, Y., Moradian, A., Mohagheghzadeh, A., Shokravi, S and Morowvat, M.H. 2007. *J. Biol. Sci.* 7 (6) : 904-910.
- Gilbert, I and O'Connor, J.D. 1970. Lipid Metabolism and Transport in Arthropods. In: Florkin M. and B.T. Scheer (Eds.), *Chemical Zoology*. 5(Part A), Arthropoda.
- Gobara, A.A., Akl, A.M., Wassel, A.M and Abada, M.A. 2002. Effect of yeast and some micronutrients on the yield and quality of Red Roomy grape vines. 2nd Inter. Conf. Hort. Sci., 10-12 Sept., Kafr El-Sheikh, Tanta Univ., Egypt. 709-718.
- Goel, P.K. 2000. Water pollution, causes, effects and control New age international (P) Ltd., Publ. New Delhi. 269.
- Goldman, J.O. 1979. Outdoor algal mass cultures. II. Photosynthetic yield limitations. *Water Res* 13:119-136.
- Gomes Filho, E and Sodck, L. 1988. Effect of salinity on ribonuclease activity of *Vigna unguiculata* cotyledons during germination. *J. Plant Physiol.* 132 : 307-311.

- Gonzalez, L.E., Canizares, R.O and Baena, S. 1997. Efficiency of ammonia and phosphorus removal from a Colombian agro industrial wastewater by the microalgae *Chlorella vulgaris* and *Scenedesmus dimorphus*. *Bioresour. Technol.* 60:259-262.
- Gopalakrishnan, T. 2007. Role of Cyanobacteria in sugar mill effluent, M.Phil Dissertation, Bharathidasan University, Tiruchipallai, India.
- Gordon, M., Choe, N., Duffy, J., Ekuan, G., Heilman, P., Muiznieks, I., Ruszaj, M., Shurtleff, B.B., Strand, S., Wilmoth, J and Newman, L.A. 1998. Phytoremediation of trichloroethylene with hybrid poplars. *Environ. Health Perspect.* 106: 1001-1004.
- Gottawalder, A.1985. Inhibition effect of chromium on biological wastewater treatment. *Leader.* 36-37.
- Gouia, H., Suzuki, A., Brulfert, J and Ghorbal, M.H. 2003. Effects of cadmium on the co-ordination of nitrogen and carbon metabolism in bean seedlings. *Plant Physiology.* 160 : 367-376.
- Govindan, V.S. 1985. The treatment of tannery wastewaters by stabilization pond method. *Indian J. Env. Hlth.* 27: 58-66.
- Govindan, V.S. 1984. Studies on algae in relation to treatment of dairy wastewater. *Indian J. Env. Health.* 26: 261-263.
- Govindan, V. S and Sundaralingam. 1977. Studies on the treatment of textile mill wastewater by stabilization Pond method. *Indian. J. Env. Health.* 21 (4): 321– 331.
- Groenlund, E., Klang, A., Falk, S and HanAeus, J. 2004. Sustainability of wastewater treatment with microalgae in cold climate, evaluated with energy and socio-ecological principles." *Ecolo Engine.* 22(3), 155-174.
- Gupta, R.P., Abuja, S., Khan, P.K., Saxena, H and Mohapatra. 2000. Microbial biosorbents: Meeting challenges of heavy metals pollution in aqueous solutions. *Curr. Sci.*78 (8): 767-973.
- Hammouda, O., Gaber, A and Abdel Raouf, N. 1994. Microalgae and wastewater treatment. *Ecotoxicol. Environ. Saf.* 21:205-210.
- Hanumantha Rao, P., Ranjith Kumar, R., Raghavan, B.G., Subramanian, V.V and Sivasubramanian, V. 2011. Application of phycoremediation technology in the treatment of wastewater from a leather-processing chemical manufacturing facility. *Water SA.* 37 (1) : 7-14.
- Hattan, G., Wilson, B and Wilson, J.T. 2003. Performance of conventional remedial technology for treatment of MTBE and benzene at UST sites in Kansas. *Bioremediation winter.* 95-04.

- Haroun, S.A and Hussein, M.H. 2003. The promotive effect of algal biofertilizers on growth, protein pattern and some metabolic activities of *Lupinus termis* plants grown in siliceous soil. *Asian. J. Plant Sci.* 2 (13): 944-951.
- Hedge, D.M., Dwivedi, B.S and Sudhakara Babu, S.N. 1999. Biofertilizers for cereal production in India- A review. *Indian J. Agri. Sci.* 69: 73-83.
- Hegab, M.Y., Sharawy, A. M. A and El-Saida, S.A.G. 2005. Effect of algae extract and mono potassium phosphate on growth and fruiting of Balady orange trees (*Citrus sinensis*). *Proc. First Sci. Conf. Agric. Sci. Fac. Of Agric. Assuit Univ.* (1) : 73-84.
- Hendry, G.A.F. 1994. Oxygen and environmental stress in plants: An evolutionary context. *Proc. R. Soc. Edinb.* 102: 155-165.
- Hernandez, J.P., de-Bashan, L.E and Bashan, Y. 2006 Starvation enhances phosphorus removal from wastewater by the microalgae *Chlorella* spp. co-immobilized with *Azospirillum brasilense*. *Enzyme Microb. Technol.* 38: 190-198.
- Hernandez, E and Olguin, E.J. 2002. Biosorption of heavy metals influenced by the chemical composition of *Spirulina* sp. (*Arthrospira*) biomass. *Environ. Tech.* 23: 1369 –1377.
- Hill, D.T and Bolte, J.P. 2000. Methane production from low solid concentration liquid swine waste using conventional anaerobic fermentation. *Bioresource Technology.* 74: 241–247.
- Hillol Chakdar., Srikrishna, D., Jadha Dolly., Wattal Dhar and Sunil Pabbi. 2012. Potential applications of blue green algae. *J. Scientific and Industrial research.* 71: 13-20
- Hirschi, K.D., Korenkov, V.D., Wilganowski, N.L and Wagner, G.J. 2000. Expression of *Arabidopsis* CAX2 in tobacco: Altered metal accumulation and increased manganese tolerance. *Plant Physiology.* 124. 125-134.
- Hong, S.S and Lee, N. H. 1993. Growth of *Spirulina platensis* in effluents from wastewater treatment plant of pig farm. *J. Microbiol. Biotechnol.* 3: 19-23.
- Hosmani, S. P and Anita, M.C. 1998. Biochemical study of *Microcystis aeruginosa* Kutz. *Ecol. Environ. Conser.* 4: 255 – 257.
- Ibekwe, A. M., Watt, P.M., Grieve, C.M., Sharma, V.K and Lyon, S.R. 2002. Multiplex fluorogenic real-time PCR for detection and quantification of *Escherichia coli* O157:H7 in dairy wastewater wetlands. *Appl. Environ. Microbiol.* 68:4853–4862.

- Ilhami, T. B., Gulay, Y., Emine, B and Gokben. 2005. Equilibrium and kinetic studies on biosorption of Hg(II), Cd(II) and Pb(II) ions onto microalgae *Chlamydomonas reinhardtii*, *J. Environ. Manag.* 77: 85–92.
- Inthorn, D., Siditoo, N., Silapanuntakul, S and Incharoensakdi, A.2002. Sorption of mercury, cadmium and lead by microalgae. *Science Asia*, 28, 253–261.
- Inthorn, D. 2001. Removal of heavy metal by using microalgae. In *Photosynthetic Microorganisms in Environmental Biotechnology*, Kojima, H. and Lee, Y.K., Eds., Springer-Verlag, Hong Kong. 111–135.
- Ip, S.Y., Bridger, J.S., Chin, C.T., Martin, W.R.B and Raper, W.G.C. 1982. Algal growth in primary settled sewage: the effects of five key variables. *Water Res.* 16: 621–632.
- Ishida, K., Matsuda, H., Murakami, M and Yamaguchi, K. 1997. Kawaguchipectin, B and antibacterial cyclic under peptide from the Cyanobacterium *Microcystis aeruginosa*. *J. Nat. Prod.* 60: 724-726.
- Jabeen, S and Saxena, P.K. 1990. Effect of Industrial effluent on growth behaviour of *Pisum sativum*, *Grebios.* 17: 197-201.
- Jain, C.K and Ali, I. 2000. Arsenic: occurrence, toxicity and speciation techniques. *Water Resources.*34:4304-4312.
- Jain, N., Nanjundaswamy, C., Minocha, A.K and Verma, C.L. 2001. Isolation, screening and identification of bacterial strains for degradation of predigested distillery waste water. *Ind. J. Exp. Biol.* 39: 490-492.
- Jamal, S.N., Iqbal, M.Z and Athar, M. 2006a. Effect of aluminum and chromium on the germination and growth of two *Vigna* species. *Int. J. Environ. Sci. Technol.* 3: 53-58.
- Jamal, S.N., Iqbal, M.Z and Athar, M. 2006b. Effect of aluminum and chromium on the growth and germination of mesquite (*Prosopis juliflora* (Swartz.) DC). *Int. J. Environ. Sci. Technol.* 3: 173-176.
- Jamal, S.N., Iqbal, M.Z and Athar, M. 2006c. Phytotoxic effect of aluminum and chromium on the germination and early growth of wheat (*Triticum aestivum*) varieties Anmol and Kiran. *Int. J. Environ. Sci. Technol.* 3: 203-208.
- Jamal, S.N., Iqbal, M.Z and Athar, M. 2006d. Evaluation of two wheat varieties for phytotoxic effect of mercury on seed germination and seedling growth. *Agric. Consp. Sci.* 71: 41-44.
- Jensen, A. 1978. Chlorophyll and carotenoids. In: *Handbook of physiological methods, physiological and biochemical methods*. J.A. Hellebust and J.J. Craige (edt).59-70.Cambridge University Press. Cambridge.

- Jensen, A., Rystad, B and Melsom, S. 1974. Heavy metal tolerance of marine phytoplankton. 1. The tolerance of three algal species to zinc in coastal sea water. *J Exp Mar Biol Ecol*, 15, 145-157.M (Marine).
- Jha, B.S. 1991. Alterations in the protein and lipid contents of intestine, Liver and gonads in the lead exposed fresh water murrel *Channa punctatus* (Bloch). *J. Ecobio*. 12: 9-34.
- Jing Shi., Björn Podola and Michael Melkonian. 2006. Removal of nitrogen and phosphorus from wastewater using microalgae immobilized on twin layers: an experimental study. *J. Appl. Phycol*. DOI 10.1007/s10811-006-9148-1.
- Jonker, J.J.1964. De sticks to be mesting van garden in de. Isselmeerpolers *Sticks tot*. 42: 206-212.
- Kalavathi, D.F. L., Uma and Subramanian, G. 2001. Degradation and metabolization of the pigment-melanodin in distillery effluent by the marine cyanobacterium *Oscillatoria boryanum* BDU 92181. *Env. Microbiol Tech*. 29: 249-251.
- Kamaleswari, J., Murugesan, S and Sivasubramanian, V. 2009. Bioremediation of automobile effluent using cyanobacteria. *Asian J Microbiol Biotechnol Environ Sci*. 3 (2): 725-729.
- Kamaleswari, J., Murugesan, S and Sivasubramanian, V. 2007. Screening of freshwater algae for phycoremediation potentialities of industrial effluents and wastewater *Eco.Env and Conv*. 13 (4): 29-33.
- Kanika Sharma, N., Lakshmi, K., Venugopalal, Pooja Mehta., Ashish Maheswari and Shalu Bapna.2003. *Current science*. 85:9-10.
- Kannan, A., Raj and Upreti, K. 2008. Influence of distillery effluent on germination and growth of mung bean (*Vigna radiata*, L.) seeds. *J. Harardous Materials*.153.609-615.
- Kannan, S. 2006. Biodiversity of cyanobacteria in freshwater ponds of Poondi. Thanjavur. M.Phil. dissertation. Bharathidasan University. Tiruchirapalli.
- Kannan, V and Subramanian, D. 1992. Effect of removal of molybdenum in two cyanobacteria *Tolypothrix tenuis* (Kutz) Schmidtem and *Mastigocladusla minusus* Cohn. *Indian J. microbiol*. 32:185-187.
- Kannan and Rajashekaran. 1991. Correlations of water quality parameters of printing industry effluent in Sivakasi. *Indian. J. Env. Health*. 33 (3): 330-335.
- Kaplan, D., Christiaen, D and Arad, S.M .1987. Chelating properties of extracellular polysaccharides from *Chlorella* spp. *Appl Environ Microbiol*. 53:2953–2956
- Karanth, R and Madaiah, R. 2011. *Braz Arch Biol Technol.*, 54: 5-10.

- Katarzyna Chojnacka. 2007. Bioaccumulation of Cr (III) ions by Blue-Green alga *Spirulina* sp. Part I. A Comparison with Biosorption. *American J. Agricul. and Biol. Sci.* 2 (4): 218-223.
- Kaushik, P., Chauhan, A., Chauhan, G and Goyal, P. 2009. Antibacterial Potential and UV HPLC Analysis of Laboratory-Grown Culture of *Anabaena variabilis*. *Int. J. Food Saf.* 11: 11-18.
- Kawaguchi, T., Sayegh, H.A and Decho, A.W. 2003. Development of an indirect competitive enzyme linked immunosorbent assay to detect extracellular polymeric substance (EPS) secreted by the marine stromatolite forming cyanobacteria, *Schizothrix* sp. *J. Immuno assay immuno chem.* 24: 29-39.
- Kawaguchi, T and Decho, A.W. 2000. Biochemical characterization of cyanobacterial extracellular polymers (EPS) from modern marine stromatolites (Bahamas). *Prep. Biochem. Biotechnol.* 30: 321 –330.
- Kayombo, S., Mbwette, T. S., Mayo, A.W., Katima, J. H.Y and Jorgensen, S. E. 2002. Diurnal cycles of variation of physical–chemical parameters in waste stabilization ponds. *Ecological Engineering.* 18: 287–291.
- Keffer, J.E and Kleinheinz, G.T. 2002. Use of *Chlorella vulgaris* for CO₂ mitigation in a photobioreactor. *J. Indust Microbiology and Biotechnology.* 29: 275-280.
- Kempf, B and Bremer, E. 1998. Uptake and synthesis of compatible solutes as microbial stress responses to high-osmolarity environments. *Arch. Microbiol.* 170: 319–330.
- Khan, T.A and Mazid, M. 2011. Nutritional significance of sulphur in pulse cropping system. *Biology and Medicine*, 3 (2) *Special Issue*: 114-13.
- Khan, M.A and Rizvi, Y. 1994. Effect of salinity, temperature and growth regulators on the germination and early seedling growth of *Atriplex griffithii* var. Stocksii. *Can. J. Bot.* 72: 475-479.
- Khandagave, R.B., Koraddi, V.R and Chandranath, H.T. 1996. Effect of sulphur and zinc on growth and yield of rain fed cotton. *Farm. Syst.* 12 (3/4): 6-10.
- Khare, P and Bisen, P.S. 1991. Mitigating effect of physico-chemical factors on Ni²⁺ Hg²⁺ and Cu²⁺ toxicity in *Cylindrospermum*. IU 942. *Environ. Technol.* 12: 297 –301.
- Kim, D.J and Lee, H. Y. 2000. Kinetics of removing nitrogenous and phosphorus compounds from swine waste by growth of microalga, *Spirulina platensis*. *J. Microbiol. Biotechnol.* 10: 455-461.
- Kirkby, E.A. 1968. Influence of ammonium and nitrate nutrition on the cation balance and nitrogen and carbohydrate metabolism of white mustard plant growth in dilute nutrient solution. *Soil Sci.* 105: 133-141.

- Kleiner, K.T and Harper, K.T.1977. Soil properties in relation to cryptogamic ground cover in Canyon-lands National park. *J. Range Managem.* 30: 202-205.
- Klimentina Demirevska-Kepova., Lyudmlia Simova-Stoilova., Zlatimera Petrova Stoyanova and Urs Feller. 2006. Cadmium stress in barley growth leaf pigment and protein composition and detoxification of reactive oxygen species. *J. Plant Nutr.* 29: 451-468.
- Kotteswari, M., and Murugesan, S and Ranjith Kumar, R. 2012a. Phycoremediation of dairy effluent by using the microalgae *Nostoc* sp. *Int. J. Environ. Res. and Devpt.* 2 (1): 35-43.
- Kotteswari, M and Murugesan, S. 2012b. Potential use of Cyanobacterium in Bioremediation of Dairy Effluent. *Global Journal of Applied Environmental Sciences.*2 (3): 157-163.
- Kotteswari, M., Murugesan, S., Kamaleswari, J and Veeralakshmi, M. 2007. Biomanagement of dairy effluent by using Cyanobacterium. *Indian Hydrobiol.* 10 (1): 109-116.
- Kromkamp, J.C and Mur, L.R. 1984. Buoyant density changes in the cyanobacteria *Microcystis aeruginosa* due to changes in the cellular carbohydrate content. *FEMS Microbiol. Lett.*25: 105-109.
- Krupa, Z., Oqist, G and Huner, N. 1993. The effect of cadmium on photosynthesis of *Phaseolus vulgaris*. A fluorescence analysis. *Physiol. Plantarum.* 88: 626-630.
- Kulkarni, P.G and SunthiDharwadkar, M. 1998. Effect of dairy effluent on biochemical parameters of wheat seeds and fish. *Env. Biol.* 7(1): 57-60.
- Kumar, K.V., Ramamurthi, V and Sivanesan, S. 2006. Dyes and pigments. Biosorption of malachite a green cationic dye onto *Pithophora* sp., fresh water algae. *Dyes Pigments* 69, 74-79.
- Kumar, K.V., Sivanesan, S and Ramamurthi, V. 2005. Adsorption of malachite green onto *Pithophora* sp., fresh water algae: equilibrium and kinetic modeling. *Process Biochem.* 40 : 2865-2872.
- Kumar., P. Angadi, S and Vidyasagar, G. 2006. Antimicrobial activity of blue Green and green algae. *Ind. J. Pharm. Sci.* 68: 647-648.
- Kumar Senthil, R.D., Narayana Swamy, R and Ramakrishna, K. 2001. Pollution studies on sugar mill effluent–physiological characteristics and toxic metals. *Poll. Res.* 20 (1): 93-97.
- Kurtz, T and Wolk, C.P. 1995. Use of filamentous cyanobacteria for biodegradation of organic pollutants. *Appl. Environ. Microbiol.* 61: 234-238.

- Laliberte. G., Olguin E.J and De la Noë J. 1997. Mass cultivation and wastewater treatment using *Spirulina*. In: *Spirulina platensis (Arthrospira): Physiology, Cell-Biology and Biotechnology* (ed. By A.Vonshak), Taylor and Francis, London, UK. 159-173.
- Lars dotter, K. 2006a. Wastewater treatment with microalgae: a literature review. *Vatten*. 62:31-38.
- Law, S.L. 1977. Dissolved metals in aqueous effluents from municipal incineration. *J. Water Pollut. Control fed*. 49:2453.
- Leary, M.J and Rhem, G.W.1990. Nitrogen and sulfur effects on the yield and quality of corn growth for grain and silage. *J. Prod. Agricul*. 3: 135-140.
- Lee, K.Y and Lee, C.G. 2001. Effect of light/dark cycles on wastewater treatments by micro algae. *Biotechnol Bioprocess Eng*. 6: 194-199.
- Lee, N., George, C and editors. 2000. Environmental assessment in developing and transitional countries, Chichester, Willey.
- Lee, L.H.B., Lustigman, I., Yu Chu and Hsu, S. 1992. Effects of lead and cobalt on the growth of *Anacystis nidulans*. *Environ Contam. Toxicol*, 48: 230-236.
- Lee, H.Y., Lee, S.Y and Park, B. K. 1989. The estimation of algal yield parameters associated with mixotrophic and photo heterotrophic growth under batch cultivation. *Biomass*, 18:153-160.
- Lenin, M and Thamizhiniyan, P. 2009. Impact of juice factory spent wash on the growth and pigment content of Lablab purpures Sweet. (L.) *J. Phytol*.1:13- 20.
- Li, H., Liu, T., Li, Z and L. Deng, L. 2008. Low-cost supports used to immobilize fungi and reliable technique for removal hexavalent chromium in wastewater. *Biores. Technol*. 99: 2234-2241.
- Li, H., Wang, J and Zhang, J.L. 1991. Removal of nutrient salts in relation with algae in ponds. *Water Science and Technology*. 24: 75-83.
- Lin, T.H., Huang, Y. L and Wang, M. Y. 1998. Arsenic species in drinking water, hair, fingernails and urine of patients with black foot disease. *J. Toxicol. and Environ. Health*. 53:85-93.
- Lincoln, E.P and Earle, J.F.K. 1990. Wastewater treatment with microalgae. In I, A. Katsuka (Ed). Introduction to applied psychology. 429-446. Hague (The Netherlands): SPB Academic.
- Liu, B.H., Zhang, D.H and Lee, Y.K. 2000. Effects of nutrient levels on cell growth and secondary carotenoids formation in the freshwater green alga, *Chlorococcum* sp. *J. Microbiol. Biotechnol*. 10: 201-207.

- Lloyd, B.J., Leitner, A.R., Vorkas, C.A and Guganesharajah, R.K. 2003. Under-performance and rehabilitation strategy for waste stabilization ponds in Mexico. *Water Science and Technology*. 48(2): 35-43.
- Lobthobban, C.S and Harrison, P.J.1994. Seaweed Ecology and physiology. Cambridge
- Lockert, C, K., Hoagland, K, D and Siegfried, B, D. 2006. Comparative sensitivity of freshwater algae to atrazine. *Bull Environ Contam Toxicol*. 76: 73-79
- Lodi, A., Binaghi, L., Solisio, C., Converti, A and Del Borghi, M. 2003. Nitrate and phosphate removal by *Spirulina platensis*. *J. Ind. Microbio. and Biotechn.* 30(11): 656-660.
- Lowry, O.H., Rosebrough, N.J., Faer, A.L and Randall, R.J. 1951. Protein measurements with Folin-phenol reagent. *J. Biol. Chem*. 193:265-275.
- Lu, Y and Wilkins, E. 1995. Heavy metal removal by caustic-treated yeast immobilized in alginate. *Journal of Hazardous Materials*. 49(2-3):165-179.
- Ludwig, H. F., Oswald, W. J., Gotaas, H. B and Lynch, V. 1951. Algae symbiosis in oxidation ponds. Part- I. Growth characteristics of *Euglena gracilis* in sewage. *Sewage Ind. Wastes*. 23: 1337-1412.
- Macnaughton, S.J., Stephen, J.R., Venosa, A.D., Davis, G.A., Chang, Y.J and White, D.C. 1999. Microbial population changes during bioremediation of an experimental oil spill. *Appl. Environ. Microbiol*. 65:3566-3574.
- Madian, A.M. 2004. Response of Red Roomy grapevines to spraying with some micronutrients and antioxidants. M. Sc. Thesis, Fac. of Agric., Minia Univ., Egypt.
- Mahmoud, A.A., MostafaSoha, S.M., Abd El All., Azza, A.M and Hegazi, A.Z. 2007. Effect of cyanobacterial inoculation in presence of organic and inorganic amendments on carrot yield and sandy soil properties under drip irrigation regime. *Egypt. J. Appl. Sci*. 22(12B):716-733.
- Mahmood. S., Hussain, A., Saeed, Z and Athar, M. 2005. Germination and seedling growth of corn (*Zea mays*, L.) under varying levels of copper and zinc. *Int. J. Environ. Sci. Technol*. 2: 269-274.
- Mahmoud, H.A.F and Amara, M.A.T. 2000. Response of tomato to biological and mineral fertilizers under calcareous soil conditions. *Bull. Fac. Agric. Cairo University*. 51:151-74.
- Mahmoud, S Adam. 1999. The promotive effect of the cyanobacterium *Nostoc muscorum* on the growth of some crop plants. *Acta Microbiologia Polonica*. 48. (2): 1863-71.

- Malaviya Piyush and Rathore, V.S. 2001. A correlation study on some physico-chemical quality parameters of pulp and paper mill effluents. *Poll Res.* 20(3): 465-470.
- Mallick, N. 2002. Biotechnological potential of immobilized algae for wastewater N, P and metal removal: a review. *BioMetals.* 15:377-390.
- Mallick, N and Rai, L.C. 1994. Removal of inorganic ions from wastewaters by immobilized microalgae. *World J. Microbiol. Biotech.* 10(4):439-443.
- Manoharan, C and Subramanian. 1993. Feasibility studies on using cyanobacteria in Ossein effluent treatment. *Indian J. Environ. Hlth.* 35(2):88-96.
- Manoharan, C and Subramanian, G. 1992a. Interaction between paper mill effluent and the cyanobacterium *Oscillatoria pseudogeminata* var. *Unigranulata*. *Poll.Res.* 11 (2): 73-84.
- Manoharan, C and Subramanian, G. 1992b. Sewage-cyanobacterial interaction - A case study, *IJEP.* 12(4): 254-258.
- Manu, K. J., Mohan Kumar M. V and Mohana V. S. 2012. Effect of Dairy Effluent (treated and untreated) on Seed Germination, Seedling Growth and Biochemical Parameters of Maize (*Zea mays* L.) *Int. J. Res in Chem and Environ.* 2 (1): 62-69.
- Mara, D.D., Pearson, H. 1986. Artificial freshwater environment: waste stabilization ponds. In: Rehm, H.J., Reed, G. (Eds.), *Biotechnology.* Velagsgesellschaft. 177-206.
- Margherita Grotzkyj Giorgi, Kevin Howland, Colin Martin and Adrian B. Bonner. 2012. A Novel HPLC Method for the Concurrent Analysis and Quantitation of Seven Water-Soluble Vitamins in Biological Fluids (Plasma and Urine): A Validation Study and Application. *The Scientific World Journal.* Article ID 359721 : 1-8.
- Martinez, M.E., Sanchez, S., Jiménez, J.M., El Yousfi, F and Muñoz, L. 2000. Nitrogen and phosphorus removal from urban wastewater by microalga *Scenedesmus obliquus*. *Biores Biotechnol.* 73:263-272.
- Mashhadi Akbar Boojar, M and Goodarzi, F. 2007. The copper tolerance strategies and the role of antioxidative enzymes in three plant species grown on copper mine. *Chemosphere.* 67: 2138-2147.
- Maslova, I. P., Mouradyan, E. A., Lapina, S. S., Klyachko-Gurvich, G. L and D.A. Los. 2004. Lipid fatty acid composition and thermophilicity of cyanobacteria. *Russian J. Plant Physiol.* 51: 353 - 360.

- Mathew, S and Abraham, E.T. 2004. *In vitro* antioxidant activity and scavenging effects of *Cinnamomum verum* leaf extract assayed by different methodologies. *Food ChemToxicol.* 44:198-206
- McLaughlin, M.J., Zarcinas, B.A., Stevens, D.P and Cook, N. 2000. Soil testing for heavy metals. *Commun Soil Plant Anat.*31.1661-1700.
- Meagher, R. B. 2000. Phytoremediation of toxic elements and arsenic pollutants. *Curr. Opin. Plant Biol.* 3: 153-162.
- Metcalfe and Eddy. 1991. Wastewater Engineering. Treatment, Disposal, Reuse.3rd Edition. Mc Graw-Hill, Toronto.
- Mezzomo, N., Saggiorato, A. G., Siebert, R., Tatschi, P. O., Lagoi, M. C., Hemkemeier, M., Costa, J. A., Bertolin, T. E. and Colla, L. M. 2010. Cultivation of microalgae *Spirulina platensis* (*Arthrospira platensis*) from biological treatment of swine wastewater. *Ciênc. Tecnol. Aliment, Campinas.* 30 (1): 173-178.
- Middledorp, P.J.M., Briglia, M and Salkinoja-Salonen, M. 1990. Biodegradation of pentachlorophenol in natural soil by inoculated *Rhodococcus chlorophenolicus*. *Microbiology Ecology.* 20: 123–139.
- Mishra, R. N. P.K. Behera. 1991. The effect of paper industry effluent on growth pigment, carbohydrate and protein content on rice seedlings. *Environ Pollut.* 72(2): 158-168.
- Mishra, S and Kausik.1989. Growth promoting substances of cyanobacteria. Vitamin and their influences on rice plants. *Proc.Ind. Natl. Sci. Aca.*
- Mishra, S.R and Saxena, D.N. 1989. Industrial effluent pollution of Birna Nagar, Gwalior. *Poll Res.* 8 (2): 77-86.
- Mittal, S and Senegar, R.M.S. 1989. Toxic effect of sulphate and its uptake in algae. *Natl. Acad. Sci. Lett.*12: 17-19.
- Mohamed, A.A and Shafea, A.A. 1992. Growth and some metabolic activities of *Scenedesmus obliquus* cultivated under different NaCl concentrations. *Biol. Plant.* 34, 423-430.
- Mohan, S.V., Bhaskar, Y.V and Karthikeyan, J. 2004. Biological decolourisation of simulated azo dye in aqueous phase by algae *Spirogyra* species. *Int. J. Environ. and Pollution.* 21: 211-222.
- Mosbach, K. 1987. Methods in enzymology. 35, Academic Press, New York.
- Mostafa Mohamed El-Sheekh and Ahmed Mohamed El-Otifyand Hani Saber. 2011. Alterations in Proteins and Amino Acids of the Nile Cyanobacteria *Pseudanabaena limnetica* and *Anabaena wisconsinense* in Response to

- Industrial Wastewater Pollution. *Brazilian archives of biolo and techno.* 54. 4: 811-820.
- Mulbery, W., Westhead, E.K., Pizarro, C and Sikora, L. 2005. Recycling of manure nutrients: use of algal biomass from dairy manure as a slow release fertilizer. *Bioresource Technology.* 96: 451- 458.
- Munawar, M. 1970. Limnological studies on freshwater ponds of Hyderabad. India. II. The biocoenose-distribution of unicellular and colonial phytoplankton in polluted and unpolluted environments. *Hydrobiologia*, 36(1): 105-128.
- Murugesan, S., Dhamotharan, R., RanjithKumar, R., Mutanda, T and Bux, F. 2012. Phycoremediation: An Alternative for Cost-effective treatment of waste streams. *Adv in Environ Res.* Justins A. Daniel. Nova Science Publishers. Inc. New York. 24: 268.
- Murugesan, S, Sivasubramanian, V and K. Altaff. 2010. Nutritional evaluation and culture of freshwater live food organisms on *Catla catla*. *J. Algal Biomass Utln.* 1 (3): 82 -103.
- Murugesan, S., Dhamotharan, R and Kamaleswari, J. 2007. Phycoremediation of oil refinery effluent using cyanobacterium. *Ecol.Environ and Conv.* 13(4): 35-40.
- Murakami, M and Ikenouchi, M. 1997. The biological CO₂ fixation and utilization project by RITE (2). *Energy Convers. Mgnt.* 38:S493-S497.
- Muthukumaran, M., Raghavan, B.G., Subramanian, V and Sivasubramanian, V. 2005. Bioremediation of industrial effluent using micro algae. *Indian Hydrobiology.* (Supplement): 105-122.
- Nagase, H.K., Eguchi, K., Yoshihara, K., Hirata and Miyamoto, K. 1998. Improvement of micro algal NO₂ removal in bubble column and airlift reactors. *J. Ferment. Bioeng.* 86: 421-423.
- Nagda, G.K., Diwan, A.M and Ghole, V.S. 2006. Seed germination bioassays to assess toxicity of molasses fermentation based bulk drug industry effluent. *European. J. Environ and Agri Food Chem.* 5(6): 1598-1603.
- Nakamura, A.H. 1979. Specific proline accumulation in an acra mutant of *Escherichia* k12 grown in salt hypertonic medium. *J. Gen. Microbiol.* 113: 425-427.
- Nicholson, W.L., Munakata, N., Horneck, G., Melosh, H.J and Setlow, P. 2000. Resistance of *Bacillus* endospores to extreme terrestrial and extraterrestrial environments. *Microbiol. Mol. Biol. Rev.* 64(3): 548-572.
- Octavio Perez-Garcia, Froylan M.E. Escalante, Luz E. de-Bashan. and Yoav Bashan. 2011. Heterotrophic cultures of microalgae: Metabolism and potential products. *Water research.* 45(1):11-36.

- O'Farrill, N. E., Travieso, L., Benítez, F., Bécares, E., Romo, S., Borja, R., Wieland, P and Sánchez, E. 2003. Population dynamic of algae and bacteria in an oxidation channel. *Journal of Environmental Science and Health A*. 38(4): 97-709.
- Ogbonna, J.C., Yoshizawa, H and Tanaka, H. 2000. Treatment of high strength organic wastewater by a mixed culture of photosynthetic microorganisms. *J Appl Phycol*. 12 (3/5): 277 -284.
- Ogundiran, M.A., Fawole, O.O., Adewoye, S.O and Ayandiran, T.A. 2010. Toxicological impact of detergent effluent on juvenile of African catfish (*Clarias gariepinus*) (Buchell 1822). *Agric. Biol. J. N. Am.* 1: 330-342.
- Okuda, A and Yamaguchi, M. 1960. Nitrogen fixing microorganisms in paddy soils VI. Vitamin B12 activity in nitrogen fixing blue green algae. *Soil Pl. Food*. 6: 76-85.
- Olguín, E.J. 2000. The cleaner production strategy applied to animal production. In: Olguín EJ, Sánchez G, Hernández E, editors. Environmental biotechnology an cleaner bioprocesses. London: Taylor and Francis. 227-243.
- Oliver, R.L and Ganf, G.G. 2000. Freshwater blooms, In: Whitton BA and Potts M (eds.). The Ecology of Cyanobacteria: Their Diversity in time and space. Kluwer, Dordrecht. 149-194.
- Om, H., Singh, N and Arya, M.S. 1994. Combined effect of wastes of distillery and sugar mill on seed germination, seedling growth and biomass of okra (*Abelmoschus esculentus* L. Moench). *J. Environ. Biol*. 15:171-175.
- Omran, Y.A.M., Abd El-Latif, H.A and Ali, H.A. 2003. Examining of some genetically improved yeast strains on vigor, yield component and fruit quality of "Red Roomy" grapevines. *Assiut J. of Agric. Sci*. 34(1): 33-42.
- Oswald, W.J. 1992. Micro-algae and waste-water treatment. In M.A. Borowitzka, and J. Borowitzka (Eds.), *Microalgal Biotechnology*. Cambridge: Cambridge University Press. 305-328.
- Oswald, W.J. 1988. Large scale culture systems: engineering aspects In: M.A. Oswald, W.J. 1995. Ponds in the twenty-first century. *Water Sci. Technol*. 31: 1-8.
- Oswald, W. J. 1963. High rate ponds in waste disposal. *Dev Ind. Microbiol*, 4:112-119. Borowitzka, L., Borowitzka (Eds). *Micro algal biotechnology*, Cambridge University. 357-92.
- Oswald, W.J and Golueke. 1960. Biological transformation of solar energy. *Adv. Appl. Microbiol*, 2: 223-262.

- Oswald, W.J and Gotaas, H.B. 1957. Photosynthesis in sewage treatment. *Trans.Am. Soc. Civil Enng.* 122: 73-105.
- Oswald, W. J., Gotaas, H. B., Ludwig, H. F and Lynch, V. 1953a. Algae symbiosis in oxidation ponds. Part-II. Growth characteristics of *Chlorella pyrenoidosa* cultured in sewage. *Sewage Ind. Wastes.* 25: 26-37.
- Oswald, W. J., Gotaas, H. B., Ludwig, H. F and Lynch, V. 1953b. Algae symbiosis in oxidation ponds. Part III. Photosynthetic oxygenation. *Sewage Ind. Wastes* 25: 692-705.
- Oyediran, A.B.O.O. 1997. A keynote Address on Waste Generation and Disposal in Nigeria in Perspectives in Environmental Management in NEST Annual Workshops 1991 to 1995 (D. Okali, K.O Ologe and U.M Igbozurike eds.), NEST Desktop Publications, Ibadan, Nigeria.95-100.
- Ozdemir, G., Karabay, N., Dolay, M and Pazarbasi, B. 2004. Antibacterial activity of volatile extracts of *Spirulina platensis*. *Phytother. Res.* 18 (9): 754-754.
- Padma, N., Reddy, M.N and Ragothman, G. 1997. Recent trends in algal research Ed: Subbarangiah Andhra Uni.Waltair.
- Padmapriya, C and Murugesan, S. 2012. Phycoremediation of Distillery Effluent using Cyanobacterium *Oscillatoria* sp *Int. J. Environ Res and Develop.* 2 (1): 45-48.
- Palmer, C.M. 1969. A composite relating of algae tolerating organic pollution. *J. Phycol.* 5: 78-82.
- Panasker, D.B and Pawar, R.S. 2011. Effect of textile mill effluent on growth of *Vigna unguiculata* and *Pisum sativum* seedlings. *Indian J. Sci. Technol.* 4(3): 266-272.
- Pandey, D.K and Soni, P. 1994. Distillery Effluent- A Potential Resource for Irrigating. Forest Seed Beds, ICFRE Publications, Dehradun, India.267-268.
- Pandey, P. K., Singh, B. B., Mishra, R and Bisen, P.S.1996. Ca_2^+ uptake and its regulation in the cyanobacterium *Nostoc* MAC. *Curr. Microbiol.* 32: 332 - 335.
- Pandit, B.R., Prasannakumar, P.G and Maheshkumar, R. 1996. Effect of dairy effluent on seed germination, seedling growth and pigment of *Pennisetum typhoides* Barm and *Sorghum bicolor* L. *Pollution Research.* 15(2): 121-123.
- Panse, V.G and Sukhatme, P.V. 1978. Statistical methods for Agricultural Workers, New Delhi, ICAR (India).359.

- Park, E.K. and Lee, C.G. 2001. Astaxanthin production by *Haematococcus pluvialis* under various light intensities and wavelengths. *J. Microbiol. Biotechnol.* 11: 1024-1030.
- Patil, B.D and Tijare, R.V. 2001. Studies on water quality of Gadchiroloike. *Poll Res.* 20 (1): 257-259.
- Pearson, H. 1990. The Biology of Waste Stabilization Ponds. In P. Edwards and R. Pullin (Eds.). Wastewater-fed aquaculture: Proceedings of the International Seminar on Wastewater
- PerumalSenthil., Savarimuthu Jeyachandren., Chockkaya Manoharan and Subramanian Vijayakumar. 2012. Impact of rubber industry effluent on the amino acid and fatty acid content of cyanobacteria. *European J. Experil Biolo.*, 2 (1):266-269.
- Phang, S.M., Miah, M.S., Yeoh, B.G and Hashim, M.A. 2000. *Spirulina* cultivation in digested sago starch factory wastewater. *J. Appl. Phycol.* 12 : 395-400.
- Philipose, M.T. 1960. Freshwater phytoplankton of inland fisheries, Proc. Sym. Algal., ICAR, New Delhi, 272-291.
- Picot, B., El Halouani, H., Casellas, C., Moersidik, S and Bontoux, J. 1991. Nutrient removal by high rate pond system in a mediterranean climate. *Water Sci. Technol.*, 23:1535-1541.
- Pool, E.J., Klaasen, J.A and Shoko, Y.P.2009. The environmental toxicity of *Dicrothamnus rhinocerotis* and *Galenia africana*. *African J. Biotech.* 8: 4465-4468.
- Post, A.F., Cohen, I and Romen, E., 1994. Characterization of two *Chlorella vulgaris* (Chlorophyceae) strains isolated from wastewater oxidation ponds. *J. Phycol.* 30.(6): 950-954.
- Prasanth., Shasidhara, S., Kumar, M.M and Sridhara, B.Y. 2000. Effect of *Luffa echinata* on lipid peroxidation and free radical scavenging activity. *J Pharm. Pharmacol.* 52, 891.
- Priya Koushik., Garg, V and Bhupinder Singh, K. 2005. Effect of textile effluents on growth performance of wheat cultivars. *Bioresource Techn.* 96(10):1189-1193.
- Rai, L.C.H.D. Kumar, F.H. Mohn and C.J. Soeder. 2000. Services of algae to the environment. *J. Microbiol. Biotechnol.* 10: 119-136.
- Rai, L.C., Kumar, H.D. 1976. Nutrient uptake up *Chlorella vulgaris* and *Anacystis nidulans* isolated from the effluent of a fertilizer factory. *Indian Journal of Ecology.* 3: 63-69.

- Rajannan, G and Oblisami, G.1979. Effect of paper factory effluent on soil and crop plant. *Ind.J.Environ.Health.* 21:120-130.
- Rajasulochana, R., Dhamotharan, R., Murugesan, S and Ramachandra Murthy, A. 2009. Bioremediation of Oil Refinery Effluent by Using *Scenedesmus olivaceus*. *Journal of American Science.* 5(4):17-22.
- Rajendra, B., Gaikar. B., Uphade, K., Gadhave, A.G and Kuchekar, S.R. 2010. Effect of dairy effluent on seed germination and early seedling growth of soyabeans. *Rasayan. J. Chem.* 3: 137-139.
- Raka, V.K., Agnihorti, A.R., Thakdi, R.J., Shirkrolka, E.B and Sabuka, S. 1999. Efficiency of rapid field test to detect faecal pollution in drinking water. *Poll Res.* 18(1): 37-42.
- Ramana, S., Biswas, A.K., Kundu, S., Saha, J.K and Yadava, R.B.R. 2001. Efficacy of distillery effluent on seed germination and seedling growth in mustered, cauliflower and radish. *Proc. Nat. Acad. Sci. India.* 71:129-136.
- Rana, B.C and Kumar, H.D. 1974. Ecophysiological studies on uptake of the pollutants copper, zinc and phosphate by certain algae. *Ind. J. Ecol.* 1: 1-11.
- Rani, M.S.A and Sathiamoorthy, S. 1997. Effect of organic and bio-fertilizers on root enzyme activity, nematode, total biomass and growth enhancement of Papaya cv. Co. 6. *South India Hort.* 45: 217-23.
- Ranjith Kumar, R. Hanumantha Rao, P. Subramanian, V.V and Sivasubramanian, V. 2011. Enzymatic and non-enzymatic antioxidant potentials of *Chlorella vulgaris* grown in effluent of a confectionery industry. *J Food Sci Technol.* DOI 10.1007/s13197-011-0501-2.
- Ravikumar, S., Murugesan, S., Dhamotharan, R., Pandian, R and T.S. Subha. 2012. Phycoremediation efficiency of steel effluent wastewater by *Oscillatoria* sp *Global J. Appli Enviro Sci.* 2(1): 47-54.
- Ravikumar, S., Murugesan, S., Dhamotharan, R., Pandian, R and Subha, T.S. 2012. Bioremediation of Pharmaceutical Effluent by Employing Algae. *Global J. Appl Environ Sci.* 2(1): 29-36.
- Rawat, I., Ranjith Kumar, R., Mutanda, T and Bux, F. 2011. Dual role of microalgae: Phycoremediation of domestic wastewater and biomass production for sustainable biofuel production. *Appl. Energy.* 88: 3411-3424.
- Reddy, M. N., Srivastava, V and Patil, V. 2002. Effect of cadmium, lead and zinc on growth of some cyanobacteria. *J. Ecobiol.* 14: 161 - 167.
- Reddy, M.N., Ragothaman, G and Padma, N. 1997. Effect of cadmium on the growth of *Chlorogloea fritschii* and *Synechocystis* sp. *J. Sea Weed Res. Utilizn.* 19 (1 & 2): 81-94.

- Rehman, A., Shakoori, A. R. 2003. Isolation, growth, metal tolerance and metal uptake of the green alga, *Chlamydomonas* (Chlorophyta) and its role in bioremediation of heavy metals. *Pakistan J. Zool.* 35(4): 337-341.
- Richard, F. Pico and Jhon Groeniwold, 1984. Dairy wastewater. *Poll. Control Fect.* June.636
- Richmond, A. 2003. Biological principles of mass cultivation. In: Richmond A (ed) Handbook of microalgal culture: Biotechnology and applied phycology. Blackwell, Oxford. 125-177.
- Richmond, A and Becker, E.W. 1986. Technological aspects of mass cultivation - A general outline. In CRC Hand Book of Microalgal Mass Culture [Richmond (ed.)]. 245-263.
- Rippaka, R. Durulles., J. Waterburg., J.B. Heredman, M and Stanier, R.Y. 1979. Generic assignments. Stain histories and properties of pure cultures of cyanobacteria. *J. Gen. Microbiol.* 3. 1-61.
- Rittman, B.E and McCarty, P.L. 2001. Environmental Biotechnology: Principles and applications by B. E. Rittmann and P. L. McCarty, McGraw-Hill Book Co., New York.
- Roe, J.H. 1955. The determination of sugar in blood and spinal fluid with anthrone reagent. *J. Biol. Chem.* 20:335-343.
- RongGuo, T., Guo Ping, Z and Yan Hua, Z. 2007. Physiological changes in barley plants under combined toxicity of aluminum, copper and cadmium. Colloids and Surfaces. B. *Biointerfaces*, 57: 182-188.
- Rosales, N., Ortega, J., Mora, R and Morales, E. 2005. Influence of salinity on the growth and biochemical composition of the cyanobacterium *Synechococcus* sp. *Ciencias Marina*. 31: 349 - 355.
- Roy, D., Greenlaw, P. N and Shane, B. S. 1993. Adsorption of heavy metals by green algae and ground rice hulls. *J. Environ Sci and Health Part A*, 28(1): 37-50.
- Ruangsomboon, S., Chidthaisong, A., Bunnag, B., Inthorn, D and Harvey, N.W. 2007. Lead adsorption characteristics and sugar composition of capsular polysaccharides of cyanobacterium *Calothrix marchica*. *Songklanakarin. J. Sci. Technol.* 29(2) : 529-541.
- Rzhanova, G.N. 1968. Extracellular nitrogen-containing compounds of two nitrogen-fixing species of blue-green algae. *Mikrobiologiya* 36: 536-540.
- Safonova, E and Reisser, W. 2005. Growth promoting and inhibiting effects of extracellular substances of soil microalgae and cyanobacteria on *Escherichia coli* and *Micrococcus luteus*. *Physiological Research*. 53(3): 189-193.

- Safonova, E., Kvitko, K.V., Iankevitch, M.I., Surgko, L.F., Afri, I.A and Reisser, W. 2004. Biotreatment of industrial wastewater by selected algal–bacterial consortia. *Eng. Life Sci.* 4 347-353.
- Saha, S. 1993. Treatment of aqueous effluent for fluoride removal. *Water Res.* 27: 1347-1350.
- Sahai, R and Neelam. 1987. Effect of fertilizer factory and distillery factory effluents on seed germination, seedling growth, pigment content and biomass of *Phaseolus radiatus* L. *Indian J. Ecol.* 14 (1): 21-25.
- Sahai, R., Saxena, P.K and Jabeen, S. 1985. Ecological survey of the algal flora of polluted habitats of Gorakhpur, *Phykos.* 24: 4-11.
- Sahu, J and Adhikary, S.P. 1982. Heterotrophic growth and pigment composition of four filamentous blue-green algae. *Arch.Hydrobiol.Suppl.* 63: 189-199.
- Sallal, R and Neelam. 1983. Growth of cyanobacteria on sewage effluents *Microbes.*48:121-129.
- Samal, A. C., Bhar, G and Santra, S.C. 2004. Biological process of arsenic removal using selected microalgae. *Indian J. Exp. Biol.* 42: 522 - 528.
- Sanchez, S., Martínez, M. E., Espejo, M. T., Pacheco, R., Espinola, F., M and Hodaifa, G. 2001. Mixotrophic culture of *Chlorella pyrenoidosa* with olive-mill wastewater as the nutrient medium. *J. Appl. Phycol.*13: 443-449.
- Saxena P.N., Tiwaroi, A and Khan, M.A. 1974. Effect of *Anacystis nidulans* on Physico Chemical and biological characteristics of raw sewage *Proc. Ind. Acad.* 79: 139-146.
- Senegar, R.M.S., Sharma K.D and Mittal. S, 1981. *In vitro* studies for the publication of river water by algal treatment. *Geobios.* 17: 77-81.
- Shah, V., Ray, A., Garg, N and Madamwar, D. 2000. Characterization of the extracellular polysaccharides produced by the marine cyanobacterium *Cyanothece* ATCC 51142 and its exploitation toward metal removal from solutions. *Curr. Microbiol.* 40: 274 -278.
- ShanthiSundaram and Soumya, K.K. 2011. Study of physiological and biochemical alterations in cyanobacteria under organic stress. *American J. Pl. Physiol.* 6(1): 1-16.
- Shilo, M. 1987. Philos. *Trans R. Soc. London Ser. B.*365.
- Shrotri, C.K., Rathore, V.S and Mohanty, P. 1981. Studies on photosynthetic electron transport, phosphorylation and CO₂ fixation in Zn deficient leaf cells of *Zea mays*. *J. Plant. Natr.* 3: 353-954.

- Sincero, A. P and Sincero, G. A. 2003. Physical-Chemical Treatment of Waste and Wastewater. CRC Press, New York.
- Singh, M.V. 2009. Micronutrient nutritional problems in solids of India and improvement for human and animal health. *Indian. J. of Fertil.* 5(4): 11-16, 19-26 and 56.
- Singh, P.P., Manish, M and Singh, J. 2006. Impact of fertilizer factory effluent on seed germination, seedling growth and chlorophyll content of gram (*Cicer arietinum*). *J. Environ. Biol.* 27:153-156.
- Singh, P.K., Dhar, D.W, Pabbi, S. Prasanna. R and Arora, A. 2002. BGA. *Azolla* Biofertilizers -A manual for the production. *Evaluation and Utilization*. Venus Printers and publishers, New Delhi.
- Singh, R.K., S.A. Iqbal and Seth. P.C. 2001. Bacteriological pollution in a stretch of River Narmada at Hoshandad, M. P. *Poll Res.* 20 (1): 211-213.
- Singh, V.K. 1991. Changes induced by phorate in the nitrogen metabolism of black gram. *Journal of Advances in Plant Science.* 4: 153-158.
- Singh, P.K and Bisoyi, R.N. 1989. Blue-green algae in rice fields. *Phykos* 28:181.
- Singh, D.K., Kumar, D and Singh, V.P. 1985. Studies of pollution effects of sugar mill and distillery effluents of rice seed germination and seedling growth three variety of rice. *J. environmental Biology.* 6 (1); 31-35.
- Sinha, S.K. 1993. Physico-chemical characteristics of effluent discharged from Lohat sugar factory in Bihar. *Environ. and Ecology.* 11(2): 263-268.
- Smirnoff, N.1993. The role of active oxygen in the response of plants to water deficit and desiccation. *New Phytol.* 125: 27-58.
- Soltani, N., Khavari-Nejad, R.A., Tabatabaei Yazdi, M., Shokravi, S.H and Fernández- Valiente, E.2006.Variation of nitrogenase activity, photosynthesis and pigmentation of the cyanobacterium *Fischerella ambigua* strain FS18 under different irradiance and pH values. *World. J. Microbiol. Biotechnol.* 22: 571-576
- Somashekar., Gowda, S.L.N., Shettigar and Srinath, K.P. 1984. Effect of industrial effluents on crop plants. *Indian J. Environ. Hlth.* 26(2): 136-146.
- Somashekhar, R.K and S.N. Ramaswamy. 1983. Algal indicators of paper mill waste water. *Phykos* 22: 161-166.
- Sreejayan, N and Rao, M.N.A. 1996. Free radical scavenging activity by curcuminoids. *Drug Res.* 46. 169.

- Sreekumar, G and Soundardjan Krishnan.2010. *Bacillus subtilis* strain SK09, 16s ribosomal RNA gene sequence. In: Gene Bank, *Indian J. Science and Technology*. 8: 863-866.
- Steven K Wilhelm.1995. Ecology of iron-limited cyanobacteria: a review of physiological responses and implications for aquatic systems. *Aquatic Micro ecology*. 9: 295-303.
- Stewart, W.D.P., Rowell, P, Kerby, N.W., Reed, R.H and Machray, G.C. 1987 N₂-fixing cyanobacteria and their potential applications. *Phil Trans R Soc Lond B*. 317: 245-258.
- Stino, R.G., Mohsen, A. T., Maksoud, M. A., Abdelmigeed, M.M.M., Gomaa, A.M and Ibrahim, A.Y. 2009. Bio-organic fertilization and its impact on Apricot young trees in newly reclaimed soil. *Amer-Eurasian J. Agric. and Environ.Sci*. 6(1): 62-69.
- Subhashini, R., Kumar, K and Kannaiyan S. 2003. Intrinsic antibiotic resistance and biochemical characteristics of *Anabaena azollae* isolated from *Azolla*-cultures. *Indian J. Microbiol.*43: 165 -169.
- Subramanian, G and Shanmugasundaram, S. 1986. Influence of the herbicide 2, 4-D on nitrogen fixation and ammonia excretion by the cyanobacterium *Anabaena*. *Proc Indian Natl Sci Acad*. B52: 308-312.
- Subramanian, G., Sekar, S and Sampooram, S. 1994. Biodegradation and utilization of organ phosphorous pesticides by cyanobacteria. *Int. Biodeterior Biodegradation*. 33(2): 129-143.
- Subramanian, G and Shanmugasundaram, S. 1983. Sewage utilization and waste recycling by cyanobacteria. *Ind. J. Environ. Health*. 28: 250 -253.
- Subramanian, G. 1982. Strains variation in *Anabaena*, Ph.D. thesis, M.K. University, Madurai.
- Sudarat Chaichalearm., Duangrat Inthorn., Marasri Ruengjitchatchwalya and Prayad Pokethitiyook. 2006. Cadmium removal by immobilized *Scytonema* sp and *Haploziphon Hiberinicus*. *Poll Res*. 25 (3): 597-607.
- Suhail, S., Biswas, D., Farooqui, A., Arif, J.M and Zeeshan, M. 2011. *J. Chem. Pharm. Res*. 3(2): 472-478.
- Sulaiman, S.M., Prabhakaran, J and Purushothaman, D. 2002. Population dynamics of microbes in dye factory effluent contaminated soil. *J.Ecotoxical. Environ. Monit*, 12(1):31-34.
- Sun, Y., Hayakawa, S., Ogawa, M., Izumori, K. 2007. Antioxidant properties of custard pudding dessert containing rare hexose, D-psicose. *Food Cont.*18: 220-227.

- Sundaramoorthy, P and Lakshmi., S. 2000. Screening of groundnut varieties for tolerance to tannery effluent. *Pollut. Res.* 19: 543-548.
- Sundaramoorthy, P. S., Saravanan, A., Subramani and Lakshmanachary, A.S .2000. Toxicity effect of fertilizer factory effluent on seed germination and seedling growth of some agricultural crops. *Poll. Res.* 19(4): 529-533.
- Talbot, P and de la Noue, J. 1993. Tertiary treatment of wastewater with *Phormidium bohneri* (Schmidle) under various light and temperature conditions. *Water Res.* 27(1): 153-159.
- Tam, N.F.Y., Lau, P.S and Wong, Y.S. 1994. Wastewater inorganic N and P removal by immobilized *Chlorella Vulgaris*. *Water Sci. Tech.* 30(6): 369-374.
- Tam, N.F.Y and Wong, Y.S. 1990. The comparison of growth and nutrient removal efficiency of *Chlorella pyrenoidosa* in settled and activated sewages. *Environ. Pollut.* 65: 93-108.
- Tang, E.P.Y., Vincent, W.F., Proulx, D., Lessard, P. and De la Noue, J. 1997. Polar cyanobacteria versus green algae for tertiary wastewater treatment in cool climates. *J Appl Phycol.* 9 (4): 371 - 81.
- Tarar, J.L., Bodhke, S.S and Charja, V.Y.1998. Ecological studies on freshwater and polluted water euglenoids of Nagpur. *Intl. J.Mendel.* 15(3-4): 127-128.
- Thabaraj, G J., Bose, S. M and Nayaidanma. 1964. Utilization of tannery effluents for agricultural purposes. *Environ.Hlth.* 6: 18-36.
- Thamizhiniyan, P. Sivakumar, P.V. Lenin, M and Sivaraman, M. 2009. Sugar mill effluent toxicity in crop plants. *Journ of Phytol.* 68-74.
- Thamizhiniyan, P., P. Sundaramoorthy and A.S. Lakshmanachary. 2000. Effect of sugar mill effluent on germination, growth and pigment contents of groundnut (*Arachis hypogaea* L.) and paddy (*Oryza sativa*, L.). *Indian J. Appl. Pure Bio.* 15:151-155.
- Tanaka, A., Vavasero, S.A. Garcia, C.V. Parao, F.T and Ramierz, E. 1964. Growth habit of rice plants in tropics and its effect on N response. *Inter.Rice Res.Inst.Phillipines Tech. Bull.* 3.
- Tomer, B.S., Tomer,S.K and Yogendra Singh. 2002. *J. Nature Conservator.* 14(2): 233-236.
- Torzillo, G., Pushparaj, B., Masojidek, J and Vonshak, A. 2003. Biological constraints in algal biotechnology. *Biotechnol Bioprocess Eng.* 8:338–348.

- Travieso, L., Benitez, F., Weiland, P., Sánchez E., Dupeyrón, R and Dominguez, A.R. 1996. Experiments on immobilization of microalgae for nutrient removal in wastewater treatments. *Bioresour Technol.* 55:181-186.
- Trivedi, R.K and Goel, P.K. 1984. Chemical and Biological Methods for Water Pollution Studies Environmental Publication, Karad.1-112.
- Uma, L., Selvaraj, K., Subramanian, G., Nagarkar, S and Manjula, R. 2002. Biotechnological potential of marine cyanobacteria in wastewater treatment. Disinfection of raw sewage by *Oscillatoria willei* BDU 130511. *J. Microbiol.Biotechnol.* 12: 699-696.
- Uma, L and Subramanian, G. 1990. Effective use of cyanobacteria in effluent treatment, Natl. Symp. Cyanobacterial Nitrogen-Fixation, IARI, New Delhi. 437-444.
- Valarmathi, S and Azariah, J. 2002. Impact of two sub lethal concentrations of copper chloride and chlorine on the excretory products of crab *Sesarma quadratum* (Fabricius). *Turk. J. Zool.*, 26: 357-361.
- Van Hille, R. P., Boshoff, G. A., Rose, P. D and Duncan, J. R. 1999. A continuous process for the biological treatment of heavy metal contaminated acid mine. *Water. Resources, conservation and Recycling.* 27: 157-167.
- Vanithasree, V and Murugesan, S. 2010. Growth and nutrient removal rates of *Oscillatoria acuminata* and *Scenedesmus armatus* in aquaculture wastewater: A laboratory- scale study. *Biosci., Biotech. Res. Asia.* 7(2): 700-711.
- Vargas, M. A., Rodriguez, H., Moreno, J., Olivares, H., Del Campo, J., A. Rivas, J and M.G.Guerrero, M.G 1998. Biochemical composition and fatty acid content of filamentous nitrogen fixing cyanobacteria. *J. Phycol.* 34: 812 - 817.
- Veeralakshmi, M., Kamaleswari, J., Murugesan, S and Kotteswari, M. 2007. Phycoremediation of petrochemical effluent by cyanobacterium. *Indian Hydrobiology.* 10 (1): 101-108.
- Venkararamanan, L.V 1994. Algal biotechnology in the Asia-Pacific Region. University of Malaysia, Kuala Lumpur.
- Venkataraman, L.V and Becker, E.W. 1985. In *Biotechnology and Utilization of algae – The Indian Experience*. Dept. of Science and Technology, New Delhi, India.
- Venkataraman, L.V and Becker, E.W. 1985. Biotechnology and Utilization of Algae – The Indian Experience. Dept. Sci. Technol. New Delhi, India and CFTRI, Mysore, India.257.
- Venkata Mohan, S., Ramanaiah, S.V., Rajkumar, B and Sarma, P.N. 2007. Removal of fluoride from aqueous phase by biosorption onto algal biosorbent *Spirogyra*

- sp.-IO2: Sorption mechanism elucidation. *Journal of Hazardous Materials* 141: 465-474.
- Venkata Mohan, S. Y. Vijaya Bhaskar, J and Karthikeyan. 2003. Biological decolorization of simulated azo dye in aqueous phase by algae *Spirogyra* species, *Int. J. Environ Pollut.* 21 (3): 211-222.
- Verma, P and Madamwar, D. 2002. Comparative study on transformation of azo dyes by different white rot fungi. *Indian J. Biotechnol.* 1 (10): 393-396.
- Verma, N., Gurpreet, K and Rahel, 1996. To study the response of cyanobacteria in Ni (II) ions from industrial wastewater for selection of bioindicators. *Poll. Res.* 15: 75-77.
- Verma, A.M., Dudani, V.K., Kumari, B and Kargupta, A.N. 1988. Algal population in paper mill wastewater. *Indian. J. Environ. Hlth.* 30: 388-390.
- Vignesh, M., Shivakumar, S., Hanumantha Rao., P., Ranjith kumar. R and Sivasubramanian, V. 2006. Phycoremediation of effluents from tannery and pharmaceutical industries – a lab study. *Indian Hydrobiology.* 9 (1): 51-60.
- Vijayakumar, S., Thajuddin, N and Manoharan, C. 2007. Biodiversity of cyanobacteria in industrial effluents. *Acta Botanica Malacitana.* 32 : 1-8.
- Vijayakumar, S., Thajuddin, N and Manoharan, C. 2005. Role of cyanobacteria in the treatment of dye industry effluent. *Poll. Res.* 24(1):79-84.
- Volk, R.B and Furkert, F.H. 2006. Antialgal, antibacterial and antifungal activity of two metabolites produced and excreted by cyanobacteria during growth. *Microbial. Res.* 161: 180-186.
- Walach, M. R., Bazin, M and Pirt, J. 1987. Computer control of carbon - nitrogen ratio in *Spirulina platensis*. *Biotechnol. Bioeng.* 29: 520 – 52.
- Wang, J. S.A. Flickinger, K.Be, Y. Liu and H. Yu .1989. Daily food consumption and feeding rhythm of silver carp, *Hypophthalmichthys molitrix*, during fry to fingerling period. *Aquaculture.* 83: 73-79.
- Wang, M., Li, J., Rangarajan, M., Shao, Y., La Voie, E.J., Huang, T and Ho, C. 1998. Antioxidative phenolic compounds from Sage (*Salvia officinalis*). *J. Agric Food Chem.* 46:4869-4873.
- Welch, E. B and Lindell, T. 1992. Ecological Effects of Wastewater: Applied Limnology and Pollutant effects. Second Edition. Chapman & Hall, New York.
- Wetzel, R.G. 1983. Limnology. 2nd Edition. Saunders College Publishing. New York. pp .753.

- Whiteley, A.S and Bailey, M.J. 2000. Bacterial Community structure and physiological state within an industrial phenol bioremediation system. *Appl. Environ. Microbiol.* 66:2400-2407.
- Wilde, E and Benemann, J. 1993. Bioremoval of heavy metals by the use of microalgae. *Biotechnol Adv.* 11(4): 781- 812.
- Woollard, D. C., Indyk, H. 1986. The HPLC Analysis of Vitamin A Isomers in Dairy Products and their significance in Biopotency Estimations. *J. Micronutrient Analysis.* 2, 125-146. (Basis for the inclusion of the 13-cis isomer in the Vitamin A concentration).
- Yadav, J. P and Meenakshi. 2007. Impact of surgical effluent on germination, seedling growth and yields of selected crops. *J. Eco. Environ. Monit.* 17: 151-158.
- Yamamoto, T., Marcouli, P.A. Unuma, T and Akiama, T. 1994. Utilization of malt protein flour in fingerling rainbow trout diets. *J.Fish.Sci.* 60: 455-460.
- Yamasaki, A. 2003. An overview of CO₂ mitigation options for global warming emphasizing CO₂ sequestration options. *J. Chem. Eng. Jpn.* 36: 361-375.
- Yi, T.H and Ching, H.K. 2003. Changes in protein and amino acid contents in two cultivars of rice seedlings with different apparent tolerance to cadmium. *Plant Growth Reg.* 40: 147-155.
- Yu, H., Jia, S and Dai, Y. 2009. Growth characteristics of the Cyanobacterium *Nostoc flagellai* forme in photoautotrophic, mixotrophic and heterotrophic cultivation. *J. Appl. Phycol.*, 21:127-133.
- Yu L., Haley, S., Perret, J., Harris, M., Wilson, J and Qian, M. 2002. Free radical scavenging activity properties of wheat extracts. *J Agric Food Chem.* 50:1619-1624.
- Yupsanis, I., Moustakas, M and Domiandou, K. 1994. Protein phosphorylation-dephosphorylation in alfalfa seeds germinating under salt stress. *J. Plant Physiol.* 143: 234-240.
- Zaccaro, M.C., Salazar, C., Zulpa de., Caire, G., Storni de. Cans, M.M and Stella, A.M. 2001. Lead toxicity in cyanobacterial porphyrin metabolism. *Environ. Toxicology and Water Quality.* 16: 61-67.
- Zalawadia, N.M., Patil, R.G and Raman, S.1996. Effect of distillery wastewater with fertilizer on onion and soil properties. *Indian J. Soc. So. Sci.* 44: 802-804.
- Zeeshan, M., Suhail, S., Biswas, D., Farooqui, A and Arif, J.M. 2010. *Biochem. Cell. Arch.* 10 (2): 163-168.

- Zhou, Q.X., Cheng, Y., Zhang, Q.R and Liang, J.D. 2003. Quantitative analyses of relationships between ecotoxicological effects and combined pollution. *Sci. China Ser.* 33: 566-573.
- Zhou, Q.X and Huang, G.H. 2001. Environmental Biogeochemistry and Global Environmental Changes. Science Press, Beijing.
- Zhu, Y.L., Pilon-Smits, E.A.H., Tarun, A.S., Weber, S.U., Jouanin, L and Terry, N.1999. Cadmium tolerance and accumulation in Indian mustard is enhanced by over expressing glutamyl cysteine synthetase. *Plant Physio.*121(4): 1169-1177.
- Zollner, N and Kirsch, K.K. 1962. Über die quantitative Bestimmung von lipoiden (micro methods) metttles der vielen naturalichen lipoiden (allen bekannten plasalipoiden) gemein samen sulphophovanillin Reaktion. *Z Ges. Exp. Med.* 135:545-561.