

## PAPERS IN INTERNATIONAL REVIEWED JOURNALS

1. D.V. Vayenas and G. Lyberatos, 1994. A novel model for nitrifying trickling filters. *Water Research*, 28, 1275-1284.
2. M. Tzitzzi, D.V. Vayenas and G. Lyberatos, 1994. Pretreatment of textile industry wastewaters with ozone. *Wat. Sci. Tech.*, 29, 151-160.
3. D.V. Vayenas and G. Lyberatos, 1995. On the design of nitrifying trickling filters for potable water treatment. *Wat. Res.*, 29 (4), 1079-1084.
4. D.V. Vayenas, S. Pavlou and G. Lyberatos, 1997. Development of a dynamic model describing nitritification and nitrification in trickling filters. *Wat. Res.*, 31 (5), 1135-1147.
5. G. Dimitrakos-Michalakos, J. Martinez-Nieva, D.V. Vayenas and G. Lyberatos, 1997. Removal of iron from potable water using a trickling filter. *Wat. Res.*, 31 (5), 991-996.
6. D.V. Vayenas, S. Pavlou and G. Lyberatos, 1997. Transient modeling of trickling filters for biological ammonia removal. *Environmental Modeling and Assessment*, 2 (3), 221-226.
7. P. Lenas, N.A. Thomopoulos, D.V. Vayenas and S. Pavlou, 1998. Oscillations of two competing microbial populations in configurations of two interconnected chemostats. *Mathematical Biosciences*, 148, 43-63.
8. A. Gouzinis, N. Kosmidis, D.V. Vayenas and G. Lyberatos, 1998. Removal of Mn and simultaneous removal of Fe, Mn, and NH<sub>3</sub> from potable water using a trickling filter. *Wat. Res.*, 32 (8), 2442-2450.
9. D.V. Vayenas, M. Repanti, A. Vassilopoulos and D.A. Papanastasiou, 1998. Influence of iron overload on manganese, zinc, and copper concentration in rat tissues *in vivo*: study of liver, spleen and brain. *IJ Clinical & Laboratory Research (Clinical and Experimental Medicine)*, 28 (3), 183-186.
10. N.A. Thomopoulos, D.V. Vayenas and S. Pavlou, 1998. On the coexistence of three competing microbial populations competing for two complementary substrates in configurations of interconnected chemostats. *Mathematical Biosciences*, 154 (2), 87-102.
11. D.V. Vayenas and S. Pavlou, 1999. Coexistence of three microbial populations competing for three complementary nutrients in a chemostat. *Mathematical Biosciences*, 161 (1-2), 1-13.
12. D.V. Vayenas and S. Pavlou, 1999. Chaotic dynamics of a food web in a chemostat. *Mathematical Biosciences*, 162 (1-2), 69-84.
13. D.A. Papanastasiou, D.V. Vayenas, A. Vassilopoulos and M. Repanti, 2000. Concentration and Distribution of Iron and Transferrin after Experimental Iron Overload in Rat Tissues *in vivo*: I. Study of the Liver, the Spleen and the Central Nervous System. *Pathol. Res. Pract.*, 196 (1), 47-54.
14. D.V. Vayenas and S. Pavlou, 2001. Chaotic dynamics of a microbial system of coupled food chains. *Ecological Modelling*, 136 (2-3), 285-295.
15. D.V. Vayenas, E. Michalopoulou, G.N. Constantinides, S. Pavlou and A.C. Payatakes, 2002. Visualization experiments of biodegradation in porous media and calculation of the biodegradation rate. *Adv. Water Res.*, 25, 203-219.
16. G. Tekerlekopoulou and D.V. Vayenas, 2003. Operational and design considerations of a trickling filter for ammonia removal from potable water. *Environmental Modeling and Assessment*, 8, 55-62.
17. S. Takahama, D. Vayenas, S.N. Pandis and C. Davidson, 2004. Modelling the diurnal variation of nitrate during the Pittsburgh Air Quality Study. *Journal of Geophysical Research D: Atmospheres* 109 (16), pp. D16S06 1-10.
18. G. Aggelis, D. V. Vayenas, V. Tsagou and S. Pavlou, 2005. Prey-predator dynamics with predator switching regulated by a catabolic repression control mode. *Ecological Modelling*, 183, 451-462.

19. D.V. Vayenas, G. Aggelis, V. Tsagou and S. Pavlou, 2005. Dynamics of a two-prey-one-predator system with predator switching regulated by a catabolic repression control-like mode. *Ecological Modelling*, 186, 345-357.
20. D. Vayenas, S. Takahama and S.N. Pandis, 2005. Simulation of the thermodynamics and removal processes in the sulfate-ammonia-nitric acid system: implications for PM<sub>2.5</sub> control strategies. *Journal of Geophysical Research D: Atmospheres* 110 (7), art. no. D07S14, pp. 1-11.
21. G. Tziotzios, G. Lyberatos and D.V. Vayenas, 2005. Biological phenol removal using packed bed reactors. *Biochemical Engineering Journal* 26, 65-71.
22. E. Dermou, A. Velissariou, D. Xenos and D.V. Vayenas, 2005. Biological Chromium (VI) Reduction using a trickling filter. *Journal of Hazardous Materials*, B126, 78-85.
23. I.A. Vasiliadou, S. Pavlou and D.V. Vayenas, 2006. A kinetic study of hydrogenotrophic denitrification. *Process Biochemistry* 41, 1401-1408.
24. A.G. Tekerlekopoulou, I.A. Vasiliadou and D.V. Vayenas, 2006. Physicochemical and biological iron removal from potable water" *Biochemical Engineering Journal* 31 (1), 74-83.
25. I.A. Vasiliadou, S. Siozios, I.T. Papadas, K. Bourtzis, S. Pavlou and D.V. Vayenas, 2006. Kinetics of pure cultures of hydrogen-oxidizing denitrifying bacteria and modeling of the interactions among them in mixed cultures. *Biotechnology and Bioengineering* 95 (3), 513-525.
26. A. Kavadia, D.V. Vayenas, S. Pavlou and G. Aggelis, 2007. Dynamics of free-living nitrogen-fixing bacterial populations in antagonistic conditions. *Ecological Modelling*, 200, 243-253.
27. E. Dermou, A. Velissariou, D. Xenos and D.V. Vayenas, 2007. Biological removal of hexavalent chromium in trickling filters operating with different filter media types. *Desalination* 211, 156-163.
28. G. Tziotzios, Ch. N. Ekonomou, G. Lyberatos and D.V. Vayenas, 2007. Effect of the Specific Surface Area and Operating Mode on Biological Phenol Removal Using Packed Bed Reactors. *Desalination* 211, 128-137.
29. A.G. Tekerlekopoulou and D.V. Vayenas, 2007. Ammonia, Iron and Manganese Removal from Potable Water Using Trickling Filters. *Desalination* 210, 225-235.
30. E. Dermou and D.V. Vayenas, 2007. A kinetic study of biological Cr(VI) reduction in trickling filters with different filter media types. *Journal of Hazardous Materials* 145, 256-262.
31. G. Tziotzios, S. Michailakis and D.V. Vayenas, 2007. Aerobic biological treatment of olive mill wastewater by olive pulp bacteria. *International Biodeterioration & Biodegradation* 60 (4), 209-214.
32. I. Vasiliadou, G. Tziotzios and D.V. Vayenas, 2008. A kinetic study of combined aerobic biological phenol and nitrate removal in batch suspended growth cultures. *International Biodeterioration & Biodegradation* 61 (3), 261-271.
33. A.G. Tekerlekopoulou and D.V. Vayenas, 2008. Simultaneous biological removal of ammonia, iron and manganese from potable water using a trickling filter. *Biochemical Engineering Journal* 39 (1), 215-220.
34. A.G. Tekerlekopoulou, I.A. Vasiliadou and D.V. Vayenas, 2008. Biological manganese removal from potable water using trickling filters. *Biochemical Engineering Journal* 38 (3), 292-301.
35. G. Tziotzios, G. Lyberatos, S. Pavlou and D.V. Vayenas, 2008. Modelling of biological phenol removal in draw-fill reactors using suspended and attached growth olive pulp bacteria. *International Biodeterioration & Biodegradation* 61 (2), 142-150.
36. G. Tziotzios, E. Dermou, D. Politi and D.V. Vayenas, 2008. Simultaneous phenol removal and biological reduction of hexavalent chromium in a packed-bed reactor. *Journal of Chemical Technology & Biotechnology* 83 (6), 829-835.
37. E. Dermou and D.V. Vayenas, 2008. Biological Cr(VI) reduction in trickling filter under continuous operation with recirculation. *Journal of Chemical Technology and Biotechnology* 83 (6), 871-877.

38. A. Kavadia, D.V. Vayenas, S. Pavlou and G. Aggelis, 2008. Dynamics of free-living nitrogen-fixing bacterial populations and nitrogen fixation in a two-prey-one-predator system. *Ecological Modelling*, 218 (3-4), 323-338.
39. A. Gaki, A. Theodorou, D.V. Vayenas and S. Pavlou, 2009. Complex dynamics of microbial competition in the gradostat. *Journal of Biotechnology* 139 (1), 38-46.
40. I.A. Vasiliadou, K.A. Karanasiros, S. Pavlou and D.V. Vayenas, 2008. Experimental and modelling study of drinking water hydrogenotrophic denitrification in packed-bed reactors. *Journal of Hazardous Materials*, 165 (1-3), 812-824.
41. I.A. Vasiliadou, K.A. Karanasiros, S. Pavlou and D.V. Vayenas, 2009. Hydrogenotrophic denitrification of drinking water using packed-bed reactors. *Desalination* 248, 859-868.
42. I.A. Vasiliadou, S. Pavlou and D.V. Vayenas, 2009. Dynamics of a chemostat with three competitive hydrogen oxidizing denitrifying microbial populations and their efficiency for denitrification. *Ecological Modelling*, 220 (8), 1169-1180.
43. C.E. Economou, A. Makri, G. Aggelis, S. Pavlou and D.V. Vayenas, 2010. Semi-solid fermentation of sweet sorghum for the biotechnological production of single cell oil. *Bioresource Technology* 101, 1385-1388.
44. A.G. Tekerlekopoulou, P.G.D. Papazafiris and D.V. Vayenas, 2010. A full-scale trickling filter for the simultaneous removal of ammonium, iron and manganese from potable water. *Journal of Chemical Technology and Biotechnology* 85, 1023-1026.
45. A.G. Tekerlekopoulou, G. Tsiamis, E. Dermou, S. Siozios, K. Bourtzis and D.V. Vayenas, 2010. The effect of carbon source on microbial community structure and Cr(VI) reduction rate, *Biotechnology and Bioengineering* 107 (3), 478-487.
46. K.A. Karanasiros, I.A. Vasiliadou, S. Pavlou and D.V. Vayenas, 2010. Hydrogenotrophic denitrification of potable water - A review. *Journal of Hazardous Materials* 180, 20-37.
47. C.E. Economou, G. Aggelis, S. Pavlou and D.V. Vayenas, 2011. Modelling of single-cell oil production under nitrogen-limited and substrate inhibition conditions. *Biotechnology and Bioengineering* 108 (5), 1049-1055.
48. C.E. Economou, G. Aggelis, S. Pavlou and D.V. Vayenas, 2011. Single cell oil production from rice hulls hydrolysate. *Bioresource Technology* 102, 9737-9742.
49. C.E. Economou, I.A. Vasiliadou, G. Aggelis, S. Pavlou and D.V. Vayenas, 2011. Modeling of oleaginous fungal biofilm developed on semi-solid media. *Bioresource Technology* 102, 9697-9704.
50. M. Michailides, P. Panagopoulos, C.S. Akratos, A.G. Tekerlekopoulou and D.V. Vayenas, 2011. A full-scale system for aerobic biological treatment of olive mill wastewater. *Journal of Chemical Technology and Biotechnology* 86, 888-892.
51. M. Michailides, G. Christou, C.S. Akratos, A.G. Tekerlekopoulou and D.V. Vayenas, 2011. Composting of olive leaves and pomace from a three-phase olive mill plant *International Biodeterioration & Biodegradation* 65 (3), 560-564.
52. E. Herouvim, C.S. Akratos, A. Tekerlekopoulou and D.V. Vayenas, 2011. Treatment of olive mill wastewater in pilot-scale vertical flow constructed wetlands. *Ecological Engineering* 37 (6), 931-939.
53. K.A. Karanasiros, M.K. Michailidis, I.A. Vasiliadou, S. Pavlou and D.V. Vayenas, 2011. Potable water denitrification. *Desalination and Water Treatment* 33, 86-96.
54. A. Kavadia, D.V. Vayenas, S. Pavlou and G. Aggelis, 2011. Dynamics of a Free-Living Nitrogen-Fixing Bacteria Population Lacking of Competitive Advantage Towards an Antagonistic Population. *The Open Environmental Engineering Journal*, 4, 190-198.
55. G. Tsiamis, G. Tzagkarakis, A. Chamalaki, N. Xypteras, G. Andersen, D.V. Vayenas and K. Bourtzis, 2012. Olive-mill wastewater bacterial communities display a cultivar specific profile. *Current Microbiology* 64: 197-203.
56. A.G. Tekerlekopoulou, P.G.D. Papazafiris, and D.V. Vayenas, 2012. Effect of environmental and operating conditions on a full-scale trickling filter for well treatment. *Desalination and Water Treatment* 39(1-3): 228-234.
57. K. Katsaveli, D.V. Vayenas, G. Tsiamis, K. Bourtzis, 2012. Bacterial Diversity in Cr(VI) and Cr(III)-contaminated industrial wastewaters. *Extremophiles* 16(2): 285-296.

58. A.G Tekerlekopoulou, M. Tsiflikiotou, L. Akritidou, A. Viennas, G. Tsiamis, S. Pavlou, K. Bourtzis, D.V. Vayenas, 2013. Modelling of biological Cr(VI) removal in draw-fill reactors using microorganisms in suspended and attached growth systems. *Water Research* 47 (2): 623-636.
59. A.G. Tekerlekopoulou, S. Pavlou, D.V. Vayenas, 2013. Removal of ammonium, iron and manganese from potable water in biofiltration units: A review. *Journal of Chemical Technology and Biotechnology* 88 (5), 751-773.
60. A.K.M. Muktadirul Bari Chowdhury, C.S. Akratos, D.V. Vayenas, S. Pavlou, 2013. Olive mill waste composting: A review. *International Biodeterioration and Biodegradation* 85 , 108-119.
61. M.K. Michailides, Mar-Yam Sultana, A.G. Tekerlekopoulou, C.S. Akratos, D.V. Vayenas, 2013. Biological Cr(VI) removal using bio-filters and constructed wetlands. *Water Science & Technology*, 68, 2228-2233.
62. K. Pelendridou, M.K. Michailides, D.P. Zagklis, A.G. Tekerlekopoulou, C.A. Paraskeva, D.V. Vayenas, 2013. Treatment of olive mill wastewater using a coagulation-flocculation process either as a single step or as post-treatment after aerobic biological treatment. *Journal of Chemical Technology and Biotechnology, Article in Press*.
63. A. Chowdhury, M.K. Michailides, C.S. Akratos, A.G. Tekerlekopoulou, S. Pavlou, D.V. Vayenas, 2014. Composting of three phase olive mill solid waste using different bulking agents. *International Biodeterioration & Biodegradation*, 91, 66-73.
64. M. Michailides, T. Tatoulis, M.Y. Sultana, A. Tekerlekopoulou, I. Konstantinou, C. S. Akratos, S. Pavlou and D. V. Vayenas, 2014. Start-up of a free water surface constructed wetland for treating olive mill wastewater. *Journal of Chemical Industry, In press*.
65. Triantafyllos I. Tatoulis, Athanasia G. Tekerlekopoulou, Christos S. Akratos, Stavros Pavlou and Dimitrios V. Vayenas (2014). Aerobic Biological Treatment of Second Cheese Whey in Suspended and Attached Growth Reactors. *Journal of Chemical Technology and Biotechnology, in press*.
66. Mar-Yam Sultana, Christos S. Akratos, Stavros Pavlou and Dimitrios V. Vayenas (2014). Chromium removal in constructed wetlands: A review. *International Biodeterioration & Biodegradation*, 96, 181-190.
67. M.-Y. Sultana, A.K.Md.M.B. Chowdhury, M.K. Michailides, C.S. Akratos, A.G. Tekerlekopoulou, D.V. Vayenas, (2015). Integrated Cr(VI) removal using constructed wetlands and composting. *Journal of Hazardous Materials*, 281, 106-113.
68. M.K. Michailides, A.G. Tekerlekopoulou, C.S. Akratos, S. Coles, S. Pavlou and D.V. Vayenas (2015). Molasses as an efficient low cost carbon source for biological Cr(VI) removal. *Journal of Hazardous Materials*, 281, 95-105.
69. C.N. Economou, N. Marinakis, M. Moustaka-Gouni, G. Kehayias, G. Aggelis, D.V. Vayenas (2015). Lipid production by the filamentous cyanobacterium Limnothrix sp. growing on a synthetic wastewater in suspended- and attached-growth photobioreactor systems. *Annals of Microbiology, in press*.
70. M.-Y. Sultana, Ch. Mourtzi, T. Tatoulis, C.S. Akratos, A.G. Tekerlekopoulou and D.V. Vayenas (2015). Effect of hydraulic retention time, temperature, and organic load on a horizontal subsurface flow constructed wetland treating cheese whey wastewater. *Journal of Chemical Technology & Biotechnology, in press*.
71. A.K.Md.M.B. Chowdhury, F. Konstantinou, A. Damati , C.S. Akratos, D. Vlastos, A.G. Tekerlekopoulou and D. V. Vayenas (2015). Is physicochemical evaluation enough to characterize olive mill waste compost as soil amendment? The case of genotoxicity and cytotoxicity evaluation. *Journal of Cleaner Production*, 93, 94-102.