

# EVANGELOS A. VOUDRIAS

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Dr. **Evangelos A. Voudrias** is a Professor of Solid and Hazardous Waste Management in the Department of Environmental Engineering, Democritus University of Thrace, Xanthi, Greece. After receiving his *PhD in Environmental Engineering* from the *Department of Civil and Environmental Engineering of the University of Illinois at Urbana-Champaign*, he spent two years as a post-doctoral research fellow in the Department of Civil and Environmental Engineering at *Stanford University*, followed by two years as a Research Scientist at *Battelle Memorial Institute*, Columbus, Ohio. In 1988, he joined the Civil Engineering Faculty (rank of Assistant Professor) at *Georgia Institute of Technology*, Atlanta, Georgia, where he taught courses on hazardous waste management, advanced physical/chemical treatment processes and processes affecting the fate and transport of contaminants in subsurface systems.

In 1996, he was appointed Associate Professor in the Department of Environmental Engineering of Democritus University of Thrace and in 2001 he was promoted to the rank of the Professor at the same Department. From June 2009 to June 2020, Professor Voudrias has been the first *Director* of the Graduate Program “*Environmental Engineering and Science*” of the Department of Environmental Engineering of Democritus University of Thrace. His current research and teaching interests focus on: (1) Engineering and

management of solid and hazardous waste. (2) Management of medical waste. (3) Management of construction and demolition waste. (4) Fate and transport of contaminants in subsurface systems (aquifers, unsaturated soils, landfills) and their remediation.

He has been a Principal Investigator and Research Associate in more than 20 research projects funded by private and public funding agencies in the United States and in Greece, such as: National Science Foundation, U.S. Environmental Protection Agency, U.S. Department of Interior, U.S. Department of Energy, U.S. Air Force, Electric Power Research Institute, DuPont, Battelle Memorial Institute, General Secretariat for Research and Technology of Greece and Ministry of National Education and Religious Affairs of Greece. The results of the research work of Professor Voudrias have been presented in international conferences and published in more than **70** peer-reviewed publications in well respected international journals, such as: *Journal of Environmental Engineering-ASCE*, *Environmental Science and Technology*, *Waste Management*, *Waste Management and Research*, *Journal of Contaminant Hydrology*, *Ground Water*, *Water Research*, *Chemosphere*, *Journal of American Water Works Association*, *Transport in Porous Media* and *Environmental Progress*. Professor Voudrias is author of 7 textbooks (in Greek) published by Democritus University of Thrace. He has more than 1960 citations (self-citations excluded) and **h index=23**, as of May 2021, based on Scopus. He has been an **Associate Editor of Waste Management** from **May 2016 to January 2018**, handling mostly papers on **healthcare waste**.

#### SELECTED PUBLICATIONS

1. Tsioka, M., Voudrias, E.A. Comparison of alternative management methods for phosphogypsum waste using life cycle analysis. *Journal of Cleaner Production* 266, 121386, <https://doi.org/10.1016/j.jclepro.2020.121386> (2020).
2. Kermenidou M., Voudrias E.A. and Konstantoula A.C. Composition and production rate of cytostatic pharmaceutical waste from a Greek Cancer Treatment Hospital. *Global NEST Journal*, 21(2), 131-140 (2019).
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7. Mantzaras, G. and Voudrias, E.A. An optimization model for collection, haul, transfer, treatment and disposal of infectious medical waste: Application to a Greek region. *Waste Management*, 69, 518-534 (2017).
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11. Fytanidis, D.K. and Voudrias, E.A. Numerical simulation of landfill aeration using computational fluid dynamics. *Waste Management*, 34, 804-816 (2014).
12. Voudrias, E. and Graikos, A. Infectious medical waste management at the regional level. *Journal of Hazardous, Toxic and Radioactive Waste*, ASCE, ISSN 2153-5493/04014020(9) (2014).
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14. Voudrias, E., Goudakou, L., Kermenidou, M. and Softa, A. Composition and production rate of pharmaceutical and chemical waste from Xanthi General Hospital in Greece. *Waste Management*, 32, 1442-1452 (2012).
15. Komilis, D., Evangelou, A. and Voudrias, E. Monitoring and optimizing the co-composting of dewatered sludge: A mixture experimental design approach. *Journal of Environmental Management*, 92, 2241-2249 (2011).
16. Graikos, A., Voudrias, E., Papazachariou, A., Iosifidis, N. and Kalpakidou, M. Composition and production rate of medical waste from a small producer in Greece. *Waste Management*, 30, 1683-1689 (2010).
17. Karamalidis A. K., Evangelou A. C., Karabika E., Koukkou A. I., Drinas C. and Voudrias E. A. Laboratory scale bioremediation of petroleum-contaminated soil by indigenous microorganisms and added *Pseudomonas aeruginosa* strain Spet. *Bioresource Technology*, 101(16), 6545-6552 (2010).
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29. Karamalidis, A. and Voudrias, E.A. Cement-based stabilization/solidification of oil refinery sludge: Leaching behavior of alkanes and PAHs. *Journal of Hazardous Materials*, 148, 122-135 (2007).
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### SELECTED CONFERENCE PRESENTATIONS

1. Soultanidis, V., Voudrias, E.A. and Papaspyros, I. Release of heavy metals from conventional and cool cement blocks, using the tank leaching test. Proceedings of 6<sup>th</sup> *International Conference on Industrial and Hazardous Waste Management*, Chania-Crete, Greece, 4 – 7 September (2018).
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3. Soultanidis, V., Voudrias, E.A. and Papaspyros, I. Heavy metal leaching from cool materials. Proceedings of 5<sup>th</sup> *International Conference on Industrial and Hazardous Waste Management*, Chania-Crete, Greece, 27 – 30 September (2016).
4. Tsioka, M., Voudrias, E.A. Life cycle analysis for comparison of alternative management methods for phosphogypsum waste. Proceedings of the 1<sup>st</sup> *International Scientific Conference on “Sustainable Solutions to Wastewater Management: Maximizing the Impact of Territorial Cooperation”*, Kavala, Greece, 19-21 June (2015).
5. Mantzaras, G., Voudrias, E. and Papaspyros, I. Design of a collection, haul, transfer, treatment and disposal system for infectious medical waste management in the Region of East Macedonia – Thrace, Greece. Proceedings of 4<sup>th</sup> *International Conference on Industrial and Hazardous Waste Management*, Chania-Crete, Greece, 2 – 5 September (2014).
6. Mandalidis, A., Voudrias, E., Topalidis, A and Iosifidis, N. Revisiting composition and production rate of dental solid waste in Xanthi, Greece. Proceedings of 4<sup>th</sup> *International Conference on Industrial and Hazardous Waste Management*, Chania-Crete, Greece, 2 – 5 September (2014).
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Greece. *Proceedings of the 13<sup>th</sup> International Conference on Environmental Science and Technology CEST2013*, Athens, Greece, 5 – 7 September (2013).

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11. Banti, D. and Voudrias, E. Design of *in-situ* permeable sorption barriers for removal of BTEX from contaminated groundwater. *Proceedings of 3<sup>rd</sup> International Conference on Industrial and Hazardous Waste Management*, Chania-Crete, Greece, 12-14 September (2012).
12. Capitanio, C. and Voudrias, E. Safety and health in mechanical-biological treatment plants. *Proceedings of Sardinia 2011, 13<sup>th</sup> International Waste Management and Landfill Symposium*, Sardinia, Italy, 3-7 October (2011).
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16. Komilis, D.P., Bandi, D., Kakaronis, G., Zouppouris, G. And Voudrias, E.A. The effect of household batteries on the heavy metal content of the organic fraction of municipal solid waste during active composting. *Proceedings of XII International Waste Management and Proceedings Symposium*, Sardinia, Italy (2009).
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18. Komilis, D.P., Vrohidou, A.E. and Voudrias, E.A. The effect of nitrogen addition on the aerobic bioremediation of diesel-contaminated soils. *Proceedings of 1<sup>st</sup> International Conference on Hazardous Waste Management*, Chania-Crete, Greece, 1-3 October (2008).

19. Grekos, A., Voudrias, E.A., Gemitzi, A. And Iatrides, A. Hazardous medical waste management at the regional level: The case of region of East Macedonia-Thrace in Greece. Proceedings of *1<sup>st</sup> International Conference on Hazardous Waste Management*, Chania-Crete, Greece, 1-3 October (2008).
20. Chatzikosma, D., Panagiotakopoulos, D. and Voudrias, E.A. Assessment of alternative technologies for remediation of an uncontrolled landfill in Greece. Proceedings of *Sardinia 2007, 11<sup>th</sup> International Waste Management and Landfill Symposium*, Sardinia, Italy, 1-5 October (2007).
21. Dolaptoglou, C., Karpouzas, D.G. and Voudrias, E.A. The effect of different organic amendements on the degradation, adsorption and mobility of terbuthylazine. Proceedings of *XIII Symposium in Pesticide Chemistry*, Piacenza, Italy, 3-6 September (2007).
22. Kouseris, T., Karteris, A. and Voudrias, E.A. Production and management of solid industrial hazardous waste in the Prefecture of Thessaloniki. Proceedings of the *10<sup>th</sup> International Conference on Environmental Science and Technology*, Kos Island, Greece, 5-7 September (2007).
23. Karamalidis, A.K., Evangelou, A., Voudrias, E.A., Karabika, E. and Pilidis, G. Bioremediation of petroleum-contaminated soil by indigenous, free and encapsulated cells of *Pseudomonas Aeruginosa*. Proceedings of *Protection and Restoration of the Environment VIII*, Chania, Greece, 3-7 July (2006).
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25. Karamalidis, A.K. and Voudrias, E.A. Immobilization of metal, anions and hydrocarbons in stabilized/solidified refinery oily sludge and residuals from incineration of the oily sludge. Proceedings of *2<sup>nd</sup> International Conference of HSWMA, From Waste Disposal to Resource and Energy Recovery*, (In Greek) Athens, Greece, February 3<sup>rd</sup>-4<sup>th</sup> (2006).
26. Karamalidis, A.K., Kaffe, D. and Voudrias, E.A. Metal release from stabilized/solidified oil refinery sludge: Comparison with European regulations for landfill disposal. Proceedings of *9<sup>th</sup> International Conference on Environmental Science and Technology*, Rhodos Island, Greece, September 1<sup>st</sup> – 3<sup>rd</sup> (2005).
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