

CURRICULUM VITAE

DIMITRIOS I. MARMANIS



Personal details:

Office address

International Hellenic University,
Department of Chemistry,
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Position

Assistant Professor

Education:

1980

Petroleum Chemist at
Technical Petroleum College (TEI)
Kavala -Greece.

1985

Chemical Engineering
Aristotelian University of Thessaloniki-Greece

2007

Master : "Environmental Design Infrastructure ",
Greek Open University.

2015

PhD : "Electrochemical treatment of industrial
wastewaters by capacitive deionization,
electrocoagulation and electrooxidation" Department
of Environmental Engineering, Democritus
University of Thrace.

Teaching experience:

Under-graduate programs

- 1998- 2010 : Part time Lecturer, Department of Petroleum Technology & Natural Gas, Kavala Institute of Technology, Greece.
- 2010 - 2018: Lecturer (Laboratory), Department of Petroleum Technology & Natural Gas, Kavala Institute of Technology, Greece.
- 2018 - 2019: Assistant Professor, Department of Petroleum Technology & Natural Gas, Kavala Institute of Technology, Greece.
- 2019 - 2022: Assistant Professor, Department of Chemistry, International Hellenic University, Greece.

Post-graduate courses

- 2012- 2022: Assistant Professor, in the "MSc in Oil & Gas Technology" Department of Petroleum Technology & Natural Gas, Kavala Institute of Technology, Greece.

Memberships:

- Society of Petroleum Engineers (SPE)
- President of Technical Chamber for Chemical engineers in East Macedonia and Thrace
- Member of Technical Chamber of Greece (TEE)
- Member of the Board of Directors at the General Hospital of Kavala.
- Member of the Board of Directors of the municipal water supply service

A. Publications in international and national scientific journals

1. K. Dermentzis, D. Marmanis, E. Valsamidou, A. Christoforidis, K. Ouzounis, ELECTROCHEMICAL DECOLORIZATION TREATMENT OF NICKEL PHTHALOCYANINE REACTIVE DYE WASTEWATER, *Environmental Engineering and Management Journal*, Vol 10, No 11 (2011) 1703-1709.
2. K. Dermentzis, E. Valsamidou, D. Marmanis, "Simultaneous removal of acidity and lead from acid lead battery wastewater by aluminum and iron electrocoagulation", *Journal of Engineering Science and Technology Review*, 5 (2) (2012) 1-5.
3. D. I. Marmanis, K. I. Dermentzis, A. K. Christoforidis and K. G. Ouzounis Cadmium Removal From Aqueous Solution by Capacitive Deionization with Nano-Porous Carbon Electrodes, *Journal of Engineering Science and Technology Review*, 6 (5)(2013) 165-166.
4. D. Marmanis, K. Dermentzis, A. Christoforidis, K. Ouzounis, A. Moutzakis, Electrochemical treatment of actual dye house effluents using electrocoagulation process directly powered by photovoltaic energy, *Desalination and Water Treatment*, (2014) 1- 6 .
5. K. Dermentzis, D. Marmanis, A. Christoforidis, K. Ouzounis, ELECTROCHEMICAL RECLAMATION OF WASTEWATER RESULTED FROM PETROLEUM TANKER TRUCK CLEANING, *Environmental Engineering and Management Journal* Volume 13, No 9, (2014) 2395-2399.
6. D. Marmanis, A.Christoforidis, K. Ouzounis, K. Dermentzis, ELECTROCHEMICAL DESALINATION OF NaCl SOLUTIONS by ELECTROSORPTION ON NANO-POROUS CARBON AEROGEL ELECTRODES, *Global NEST Journal*, Vol 16, No X, pp XX-XX, (2014).

7. K. Dermentzis, D. Marmanis, A. Christoforidis, A. Moumtzakis, Photovoltaic electrocoagulation process for remediation of chromium plating wastewaters, *Desalination and Water Treatment*, (2014) 1-6.
8. D. Marmanis, K. Dermentzis and A. Christoforidis, Design and Application of Electrochemical Processes for Decolorization Treatment of Nylanthrene Red dye Bearing Wastewaters, *Journal of Engineering Science and Technology Review* 9 (1) (2016) 111 - 115.
9. D. Marmanis, K. Dermentzis, A. Christoforidis, V. Diamantis, K. Ouzounis, A. Agapiou, M. Stylianou, Electrochemical Treatment of Olive Mill Waste powered by Photovoltaic Solar Energy, *Journal of Power Technologies* 98 (5)(2018) 377-381.
10. K. Dermentzis, D. Marmanis, N. Kokkinos, K. Ouzounis, ELECTROCHEMICAL REMOVAL OF CADMIUM BY ELECTROSORPTION ONTO NANO-SIZED CARBON AEROGEL ELECTRODES, *Environmental Engineering and Management Journal*, (accepted).
11. D. Marmanis, A.Thysiadou, V. Diamantis, A. Christoforidis, K. Dermentzis (2021) Performance of Electrocoagulation Processes for the Removal of COD and Ammonia from high salinity landfill-leachate using iron or aluminium electrodes, *Journal of Engineering Science and Technology Review* 14 (4) (2021) 105 - 109.
12. Thysiadou A., Christoforidis S., Marmanis D., Solomanidoy A., Giannakoudakis P. (2021), The educational use of a website in the teaching of chemistry module on “Acids – Bases – Salts”, *Proceedings of the 2021 International Conference on Information Technologies (InfoTech-2021)*, IEEE Conference, 16-17 September 2021, St. Constantine and Elena, Bulgaria, 978-1-6654-0324-5/21/\$31.00 ©2021 IEEE DOI: 10.1109/InfoTech52438.2021.9548334.
13. Thysiadou A., D. Marmanis, S. Christoforidis, V. Gaki, P. Giannakoudakis, A. Mitropoulos, G. Kyzas (2021), Distance learning for teaching “simple colloids” with the assistance of moodle, *Proceedings of the 2021 International Conference on Information Technologies (InfoTech-2021)*, IEEE Conference, 16-17 September 2021, St. Constantine and Elena, Bulgaria, 978-1-6654-0324-5/21/\$31.00 ©2021 IEEE | DOI: 10.1109/InfoTech52438.2021.9548554
14. D. Marmanis, V. Diamantis, A. Thysiadou, N. Kokkinos, A. Christoforidis (2021) Comparison of electro-oxidation (BDD anode and Ti/Pt cathode) and electro-coagulation (aluminum electrodes) for the treatment of raw landfill leachate, *Desalination and Water Treatment*, 260 (2022) 203- 208 June.
15. Marmanis D., Eftaxias A., Dermentzis K., Marmani K., Diamantis V. (2019) Post-treatment of an anaerobic digester effluent using an electro-oxidation process. *International Journal of Terraspace Science and Technology*, 12(2), 38-40.
16. D. Marmanis, C. Emmanouil, J. G. Fantidis, A. Thysiadou, K. Marmani, (2022) Description of a Fe/Al Electrocoagulation Method Powered by a Photovoltaic System, for the (Pre-)Treatment of Municipal Wastewater of a Small Community in Northern Greece, *MDPI, Sustainability* 2022, 14, 4323. <https://doi.org/10.3390/su14074323>.
17. D. Marmanis, A. Thysiadou, A. Christoforidis, K. Marmani, A.Eftaxias ,and V. Diamantis, (2022) Electro-Oxidation of Anaerobic Digester Effluent Results in Solids Separation by Electro-Flotation Combined with COD and Ammonia Oxidation, *Journal of Engineering Science and Technology Review* 15 (2) (2022) 86 - 90.
18. Deborah C. Nkagbu, Dimitrios I. Marmanis, Konstantinos I., Dermentzis, Nikolaos C. Kokkinos, (2022) Evolution of Unconventional Hydrocarbons: Past, Present, Future and, *Environmental Footprint, JESTR*, (accepted 2022).
19. D. Marmanis, C. Emmanouil, A. Thysiadou, J.G. Fantidis, N. Kokkinos, V. Diamantis, Combined electrochemical treatment coupled to anaerobic digestion effluents, *International Conference on Electronics, Engineering Physics and Earth Science (EEPES 2022)*, (accepted 2022).

B. Presentations at international conferences:

20. K. Dermentzis, D. Marmanis, A. Christoforidis, K. Ouzounis, Capacitive deionization of NaCl solutions using porous nano-structured carbon aerogel electrodes, International Water Association (IWA) Conference, Wastewater Purification & Reuse WWPR 2012, 28-30 March 2012, Heraklion, Crete, Greece.
21. K. Dermentzis, D. Marmanis, A. Christoforidis, K. Ouzounis, Electrochemical reclamation of petroleum tanker truck cleaning wastewater, International Conference on Environmental Engineering and Management, ICEEM 07, 18-21 Sept. 2013, Vienna, Austria.
22. K. Dermentzis, D. Marmanis, A. Christoforidis, K. Ouzounis, Quasi-continuous capacitive deionization for removal of cadmium from wastewater, International Solid Waste, Water and Wastewater Congress, 22-24 May 2013, Istanbul, Turkey.
23. K. Dermentzis, D. Marmanis, A. Christoforidis, K. Ouzounis, Electrochemical treatment of wastewater from oil tanker ships washing plants, 17th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP 2013, Sept. 29 to October 1, 2013, Istanbul, Turkey.
24. K. Dermentzis, D. Marmanis, A. Christoforidis, A. Moutzakis, Photovoltaic electrocoagulation for remediation of chromium plating wastewaters, International 9 Conference on Small and Decentralized Water and Wastewater Treatment Plants, 25- 27 Oct 2013, Volos, Greece.
25. K. Dermentzis, D. Stergiopoulos, D. Marmanis, A. Christoforidis, Brackish water desalination by capacitive deionization with carbon aerogel electrodes, 6 th Panhellenic Conference (with International participation) on Porous Materials, 9-10 Sept. 2013, Kavala, Greece.
26. D. Marmanis, K. Dermentzis, D. Stergiopoulos, A. Christoforidis, Cadmium removal by capacitive deionization using carbon aerogel electrodes, 6 th Panhellenic Conference (with International participation) on Porous Materials, 9-10 Sept. 2013, Kavala, Greece.
27. D. Marmanis, K. Dermentzis, A. Christoforidis, A. Moutzakis, Electrochemical decolorization of actual textile dye effluents by electrocoagulation process directly powered by photovoltaic energy, International Conference on Small and Decentralized Water and Wastewater Treatment Plants, 25-27 Oct 2013, Volos, Greece.
28. D. Marmanis, A. Christoforidis, K. Dermentzis, K. Ouzounis, Electrochemical mineralization of nickel phthalocyanine textile dye by the electro-Fenton process, International CEMEPE & SECOTOX Conference, 24-28 June 2013, Mykonos, Greece.
29. K. Dermentzis, D. Marmanis, A. Christoforidis, Remediation of heavy metal bearing wastewater by photovoltaic electrocoagulation, 2nd International Conference "Water Resources and Wetlands", ISSN: 2285-7923, pp.257-262, 11-13 Sept. 2014, Tulcea, Romania.
30. K. Dermentzis, D. Marmanis, A. Christoforidis, N. Kokkinos, E. Apostolidou, Removal of nickel phthalocyanine reactive dye from wastewater by photovoltaic electrocoagulation, 12th International Conference on Fundamental and Applied Physical Chemistry, 22-26 Sept. 2014, Belgrade, Serbia.
31. K. Dermentzis, D. Marmanis, A. Christoforidis, D. Stergiopoulos, Electrochemical removal of sulphide and COD from petroleum wastewater, 19th Romanian International Conference on Chemistry and Chemical Engineering, ICCCE 19, 2-5 Sept. 2015, Sibiu, Romania.
32. K. Dermentzis, D. Marmanis, A. Christoforidis, N. Kokkinos, Removal of hexavalent chromium from wastewater using capacitive deionization, 7 th East European Young Water Professionals Conference, IWA, 17-19 Sept. 2015, Belgrade, Serbia.

33. K. Dermentzis, D. Marmanis, A. Christoforidis, D. Stergiopoulos, Electrochemical recovery of metallic copper from galvanic effluents, 13th Intern. Conf. PHYSICAL CHEMISTRY 2016, Proceedings, Vol. 1, pp. 367-370, 26-30 Sept. 2016, Belgrade, Serbia.
34. K. Dermentzis, D. Marmanis, A. Christoforidis, N. Kokkinos, D. Stergiopoulos, Recovery of metallic nickel from waste sludge produced by electrocoagulation of 8 nickel bearing electroplating effluents, CYPRUS 2016, 4th Int. Conf. on Sustainable Solid Waste Management, 23-25 June 2016 Limassol, Cyprus.
35. D. Marmanis, E. Valsamidou, K. Fraggidis, A. Moumtzakis, K. Dermentzis, Treatment of olive mill wastewater by a combined electrocoagulation/ electrooxidation process, 9 th Eastern European Young Water Professionals Conference, 24-28 May 2017, Budapest, Hungary.
36. V. Diamantis, A. Aivasidis, D. Marmanis, K. Dermentzis, Coupling anaerobic digestion and electrooxidation for sustainable waste treatment: a review, 6th International Conference on Sustainable Solid Waste Management NAXOS 2018, 13- 16 June 2018, Naxos Greece.
37. D. Marmanis, K. Dermentzis, A. Christoforidis, V. Diamantis, K. Ouzounis, A. Agapiou, M. Stylianou, Electrochemical treatment of olive mill waste powered by photovoltaic solar energy, 6 th Intern. Conference RESEE2018, 1-2 Nov. 2018, Nicosia, Cyprus.
38. Dimitrios Marmanis, Konstantinos Dermentzis, Kokkni Karakosta, Alexandros Eftaxias, Kyriaki Marmani, Vasileios Diamantis and Alexandros Aivasidis ,Treatment of animal by-products by combined anaerobic digestion and electrooxidation, Decemper 2019, Limnasol, Syprus.
39. K. Dermentzis, N. Kokkinos, K. Karakosta, D. Marmanis and V. Diamantis, Remediation of phenol bearing wastewater by photovoltaic electrooxidation process, 18th Austrian Chemistry Days 2019, 24-27 Sept. 2019, Linz, Austria.
40. K. Kokkinos, S. Mitkidou, K. Dermentzis, D. Marmanis, V. Diamantis, One-pot green upgrade of refinery gasoline, 18th Austrian Chemistry Days 2019, 24-27 Sept. 2019, Linz, Austria.
41. D. Marmanis, K. Dermentzis, N. Kokkinos, A. Eftaxias, V. Diamantis, Coupling anaerobic digestion and electrooxidation for biogas and nutrients recovery from animal by-products, 18th Austrian Chemistry Days 2019, 24-27 Sept. 2019, Linz, Austria.
42. D. Marmanis*, N. Kokkinos and K. Dermentzis, (2021). Landfill leachate treatment by combined electrochemical process, 4th Tokyo Conference on Innovative Studies of Contemporary Sciences, July 29-31, Tokyo, Japan.
43. N. Kokkinos D. Marmanis, K. Dermentzis, (2021). The Contribution of Virtual Reality in Awareness and Preparedness of Chemical Industry Professionals, 4th Tokyo Conference on Innovative Studies of Contemporary Sciences, July 29-31, Tokyo, Japan.
44. K. Dermentzis, N. Kokkinos, D. Marmanis, (2021). Application of electrochemical methods for treatment of drilling fluid wastewater, 4th Tokyo Conference on Innovative Studies of Contemporary Sciences, July 29-31, Tokyo, Japan.
45. D. Marmanis, V. Diamantis, A. Thisiadou, N. Kokkinos, A. Christoforidis, Landfill leachate treatment by electrochemical processes, Eighth International CEMEPE & SECOTOX Conference, 20-24 July 2021, Thessaloniki, Greece.
46. K. Dermentzis, K. Karakosta, A. Zamani, D. Marmanis (2022), 'Electrochemical Treatment of Phosphate Wastewater and simultaneous Recovery of Phosphorus and Hydrogen', 22nd Romanian International Conference on Chemistry and Chemical Engineering (RICCCE 22) Sinaia, Romania, 7-9 September 2022.
47. D. Marmanis, K. Dermentzis, V. Diamantis, (2022), Evaluation of electrocoagulation processes for municipal wastewater treatment, International European Conference on Interdisciplinary Scientific Researchers, January 28-29, Valencia, Spain.
48. K. Dermentzis, D. Marmanis, V. Diamantis, (2022), Application of electrocoagulation for recovery of phosphorus and hydrogen from phosphate containing

wastewater, International European Conference on Interdisciplinary Scientific Researchers, January 28-29, Valencia, Spain.

49. D. Marmanis, C. Emmanouil, V. Diamantis (2022), Description of electrocoagulation process powered by a photovoltaic system for municipal wastewater pretreatment in Northern Greece, Ninth International CEMEPE & SECOTOX Conference, 5-9 June 2022, Mykonos, Greece.

C. Presentations at national conferences:

50. Κ. Δερμεντζής, Δ. Μαρμάνης, Κ. Ουζούνης, Κ. Φραγκίδης, Απομάκρυνση εξασθενούς χρωμίου από υδατικά βιομηχανικά απόβλητα επιμεταλλωτηρίων με χημική και ηλεκτροχημική κροκίδωση, 21ο Πανελλήνιο Συνέδριο Χημείας, 9-12 Δεκ. 2011, Θεσσαλονίκη.
51. Κ. Δερμεντζής, Δ. Μαρμάνης, Δ. Στεργιόπουλος, Κ. Ουζούνης, Απομάκρυνση υδροθείου από υγρά απόβλητα με ηλεκτροχημική κροκίδωση, 1 ο Περιβαλλοντικό Συνέδριο Θεσσαλίας, Πρακτικά σελ. 191-196, 8-12 Σεπτ. 2012 Σκιάθος.
52. Κ. Δερμεντζής, Δ. Μαρμάνης, Κ. Φραγκίδης, Κ. Ουζούνης, Απομάκρυνση καδμίου από υδατικά βιομηχανικά απόβλητα με ηλεκτροκροκίδωση, 14ο Πανελλήνιο Συνέδριο Φυσικής, 28-Μαρτίου- 1 Απριλίου 2012, Καμένα Βούρλα Αττικής. 11
53. Κ. Δερμεντζής, Δ. Στεργιόπουλος, Δ. Μαρμάνης, Π. Γιαννακουδάκης, Αποχρωματισμός και απομάκρυνση της χρωστικής Ινδικοκαρμίνη από υγρά απόβλητα με ηλεκτροκροκίδωση, 1ο Περιβαλλοντικό Συνέδριο Θεσσαλίας, Πρακτικά σελ. 179- 184, 8-12 Σεπτ. 2012 Σκιάθος.
54. Δ. Μαρμάνης, Α. Χριστοφορίδης, Κ. Ουζούνης, Κ. Δερμεντζής, Ηλεκτροχημική αποδόμηση της χρωστικής φθαλοκυανίνη νικελίου από υδατικά απόβλητα με διεργασία ηλεκτρο-Φέντον, 9 ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, 23-25 Μαΐου 2013, Αθήνα.
55. Κ. Δερμεντζής, Δ. Μαρμάνης, Δ. Στεργιόπουλος, Α. Χριστοφορίδης, Ηλεκτροχημική επεξεργασία υδατικών πετρελαϊκών αποβλήτων, 5 ο Περιβαλλοντικό Συνέδριο Μακεδονίας, Πρακτικά σελ. 167-173, 14-16 Μαρτίου 2014, Θεσσαλονίκη.
56. Δ. Μαρμάνης, Κ. Δερμεντζής*, Α. Χριστοφορίδης, Κ. Ουζούνης, Ηλεκτροχημική διαχείριση υγρών αποβλήτων βαφείων με ανοδική οξειδωση, 5 ο Περιβαλλοντικό Συνέδριο Μακεδονίας, 14-16 Μαρτίου 2014, Θεσσαλονίκη.
57. Κ. Δερμεντζής, Δ. Μαρμάνης, Α. Χριστοφορίδης, Ν. Κόκκινος, Ηλεκτροχημική απομάκρυνση εξασθενούς χρωμίου με ηλεκτρορρόφηση σε νανο-πορώδη ηλεκτρόδια άνθρακα, 10ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, 4-6 Ιουνίου 2015, Πάτρα.
58. Δ. Μαρμάνης, Κ. Δερμεντζής, Α. Χριστοφορίδης, Θ. Σπανός, Ηλεκτροχημικές διεργασίες αποχρωματισμού της χρωστικής Nylanthrene red, 10ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, 4-6 Ιουνίου 2015, Πάτρα.
59. Κ. Δερμεντζής, Δ. Μαρμάνης, Α. Χριστοφορίδης, Ν. Κόκκινος, Δ. Στεργιόπουλος, Ηλεκτροχημική απομάκρυνση υδροθείου, θειούχων ιόντων και COD από υγρά απόβλητα επεξεργασίας πετρελαίου, 12ο Συνέδριο Χημείας Ελλάδας-Κύπρου, 8-10 Μαΐου 2015, Θεσσαλονίκη.
60. Κ. Δερμεντζής, Ν. Κόκκινος, Α. Χριστοφορίδης, Δ. Μαρμάνης, Δ. Στεργιόπουλος, Ηλεκτροχημική αφαλάτωση υφάλμυρου νερού με συνεχή χωρητικό απιονισμό και χρήση ηλεκτροδίων ρευστοποιημένης κλίνης, 22ο Πανελλήνιο Συνέδριο Χημείας, 2-4 Δεκ. 2016, Θεσσαλονίκη.
61. Δ. Μαρμάνης, Κ. Δερμεντζής, Α. Χριστοφορίδης, Δ. Στεργιόπουλος, Διαχείριση υδατικών αποβλήτων βαφείων με χρήση ηλεκτροχημικών μεθόδων, 22ο Πανελλήνιο Συνέδριο Χημείας, 2-4 Δεκ. 2016, Θεσσαλονίκη.

62. Β. Διαμαντής, Κ. Μαρμάνη, Κ. Δερμεντζής, Ν. Κόκκινος, Δ. Μαρμάνης, Επεξεργασία κτηνοτροφικών αποβλήτων σε συνδυασμό αναερόβιας χώνευσης και ηλεκτροοξειδωσης, 7ο Περιβαλλοντικό Συνέδριο Μακεδονίας, 30 Οκτωβρίου-16 Νοεμβρίου 2020, Θεσσαλονίκη.
63. Ν. Κόκκινος, Δ. Ζάχος, Σ. Μητκίδου, Κ. Δερμεντζής, Δ. Μαρμάνης, Β. Διαμαντής, Μία φιλική προς το περιβάλλον εφαρμογή της ετερογενοποιημένης ομογενούς κατάλυσης στον τομέα της διύλισης πετρελαίου, 7ο Περιβαλλοντικό Συνέδριο Μακεδονίας, 30 Οκτωβρίου-16 Νοεμβρίου 2020, Θεσσαλονίκη.
64. Κ. Δερμεντζής, Ν. Κόκκινος, Ν. Καρακώστα, Δ. Μαρμάνης, Β. Διαμαντής, Ηλεκτροχημική απομάκρυνση καδμίου με χωρητικό απιονισμό σε νανοπορώδη ηλεκτρόδια άνθρακα, 7ο Περιβαλλοντικό Συνέδριο Μακεδονίας, 30 Οκτωβρίου-16 Νοεμβρίου 2020, Θεσσαλονίκη.

D. Books:

Design and Operation of Chemical Industries, Dimitrios Marmanis
ISBN : 978-960-93-8201-4, 1st edition (2018).

Book chapter 7: . Diamantis, A. Eftaxias, D. Marmanis, K. Dermentzis, A. Aivasidis.,
Electrochemical process coupled to anaerobical digestion for sustainable treatment in the
future, VJune (2019) IWA Publishing, DOI: <https://doi.org.10.2166/9781780409740-0123>.

Monographs :

The Use of Electrochemical Processes for Industrial Wastewater Treatment (2021).

Reviewer in International Magazines :

Journal of Engineering Science and Technology Review.