

Curriculum Vitae – Dimitrios Kalderis, Ph.D.

Name and Surname : Dimitrios Kalderis
Date of birth : 6th of September 1975
Family status : Married, 1 daughter
Nationality : Greek
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1. Professional status:

May 2021 – now: Associate Professor in Solid Waste Management and Valorization.
Department of Electronic Engineering, Hellenic Mediterranean University, Crete, Greece

September 2016 – May 2021: Assistant Professor in Solid Waste Management and Valorization. Department of Environmental and Natural Resources Engineering, Hellenic Mediterranean University, Crete, Greece

January 2011 – September 2016: Lecturer in Solid Waste Management and Valorization. Department of Environmental and Natural Resources Engineering, Hellenic Mediterranean University, Crete, Greece

Scientific expertise/research interests:

Processing of biomass/agricultural waste for the production of added-value materials used in environmental remediation

Hydrothermal carbonization of industrial wastewaters and solid waste

Remediation of soils contaminated with organic substances

Teaching Courses at undergraduate level:

Municipal Solid Waste Management

Processing of Toxic Industrial Waste

Biomass valorization

2. Education:

School of Chemistry, University of Leeds, UK – B.Sc. Chemistry 2:1, 1994-1997

School of Chemistry, University of Leeds, UK – Ph.D. Environmental Chemistry, 1997-2001

Ph.D. Thesis: Soil remediation using subcritical and supercritical water

3. Professional experience in funded projects:

- 1/2021 – 1/2024** GREEN waste management new edUcation System for recycling and environmental protection in Asia. Funding: Erasmus+ EACEA Key Action 2 (Role: WP Leader)
- 3/2019 – 3/2022** DEcision support system For Irrigation in Crete based on Innovative Technologies – DEFICIT (RIS3Crete). Funding: European Structural and Investment Funds – Partnership Agreement 2014-2020 (Role: Researcher)
- 1/2018 – 6/2019** IUPAC Project #2015-056-3-600, Environment Division (VI)
“Glossary of Terms used in biochar research”. Role: Coordinator
- 7/2013 – 11/2015** Archimedes III – Risk assessment of the urban stormwater polluting load threatening the coast of the Chania municipality. Funding from the Greek Ministry of Education. (Role: Researcher)
- 1/2012 – 12/2016** COST Action TD1107 - Biochar as option for sustainable resource management (Networking project) - Prof. Kalderis was National Representative for Greece
- 1/2009 – 8/2009** Investigation, assessment and remediation of sites contaminated with industrial and hazardous waste. Funding from the Greek Ministry of Environment. (Role: Researcher)
- 1/2008 – 1/2010** IUPAC Project #2007-026-2-600, Environment Division VI
«Soils contaminated with explosives: Environmental Risk Assessment and Evaluation of state-of-the-art treatment processes». Role: Coordinator.
- 1/2008 – 5/2008** Case study: Management options for the bio-degradable waste of the municipality of Eleusina, Greece. Funding from the Municipality of Eleusina (Role: Researcher)
- 5/2007 – 10/2007** Case study: Management options for the sewage sludge of the Crete Prefecture. Funding by the Prefecture of Crete. (Role: Researcher)
- 7/2005 – 1/2007** Project HARMONICA: Production of added value materials for environmental applications from India’s agricultural waste – Production of activated carbons from rice husk and sugarcane bagasse (EUROPEAN UNION-INDIA CROSS CULTURAL PROGRAMME (ALA/95/23/2003/077-124). (Role: Researcher)
- 8/2004 – 3/2005** Project ERIS – Smart environmental systems: Application in olive mill wastewater treatment (EU Support Framework 2000-2006 – Competitiveness Action). (Role: Researcher)
- 2/2004 – 6/2005** Project HIVALUE: Production of added value materials from coal gasification by-products (EU COAL AND STEEL ECONOMIC COMMUNITY ECSC 7220-PR/145). (Role: Researcher)

4. Publications up to 1st of February 2023

h-index: 31

Citations: 5005 (Google Scholar)

Publications in peer-reviewed international Journals (75)

1. Nikolopoulos, C.D., Baklezos, A.T., Kapetanakis, T.N., Vardiambasis, I.O., Tsubota, T., Kalderis, D. Characterization of the Electromagnetic Shielding Effectiveness of Biochar-based Materials (2023) IEEE Access, doi: 10.1109/ACCESS.2023.3237327
2. Biliadis, F., Kalderis, D., Richardson, C., Barbayiannis, N., Gasparatos, D. Biochar application as a soil potassium management strategy: A review (2023) Science of the Total Environment, 858, art. no. 159782
3. Geçgel, C., Görmez, Ö., Gözmen, B., Turabik, M., Kalderis, D. A dual purpose aluminum-based metal organic framework for the removal of chloramphenicol from wastewater (2022) Chemosphere, 308, art. no. 136411
4. Görmez, Ö., Saçlı, B., Çağlayan, U., Kalderis, D., Gözmen, B. Hydrothermal Synthesis of Siderite and Application as Catalyst in the Electro-Fenton Oxidation of p-Benzoquinone (2022) Molecules, 27 (22), art. no. 8056
5. Kourgialas, N.N., Hliaoutakis, A., Argyriou, A.V., Morianou, G., Voulgarakis, A.E., Kokinou, E., Daliakopoulos, I.N., Kalderis, D., Tzerakis, K., Psarras, G., Papadopoulos, N., Manios, T., Vafidis, A., Soupios, P. A web-based GIS platform supporting innovative irrigation management techniques at farm-scale for the Mediterranean island of Crete (2022) Science of the Total Environment, 842, art. no. 156918.
6. Karatas, O., Khataee, A., Kalderis, D. Recent progress on the phytotoxic effects of hydrochars and toxicity reduction approaches (2022) Chemosphere, 298, art. no. 134357
7. Kwiatkowski, M., Kalderis, D., Tono, W., Tsubota, T. Numerical analysis of the micropore structure of activated carbons focusing on optimum CO₂ adsorption (2022) Journal of CO₂ Utilization, 60, art. no. 101996
8. Görmez, Ö., Akay, S., Gözmen, B., Kayan, B., Kalderis, D. Degradation of emerging contaminant coumarin based on anodic oxidation, electro-Fenton and subcritical water oxidation processes (2022) Environmental Research, 208, art. no. 112736.
9. Spyridakis, I., Tzanakakis, V.A., Pashalidis, I., Kalderis, D., Anastopoulos, I. Polyamide nylon 6 as a potential carrier of nitrate anions in aqueous environments (2022) Journal of Molecular Liquids, 352, art. no. 118706.

10. Kinigopoulou, V., Pashalidis, I., Kalderis, D., Anastopoulos, I. Microplastics as carriers of inorganic and organic contaminants in the environment: A review of recent progress (2022) *Journal of Molecular Liquids*, 350, art. no. 118580
11. Anastopoulos, I., Pashalidis, I., Kayan, B., Kalderis, D. Microplastics as carriers of hydrophilic pollutants in an aqueous environment (2022) *Journal of Molecular Liquids*, 350, art. no. 118182.
12. Kulaksız, E., Kayan, B., Gözmen, B., Kalderis, D., Oturan, N., Oturan, M.A. Comparative degradation of 5-fluorouracil in aqueous solution by using H₂O₂-modified subcritical water, photocatalytic oxidation and electro-Fenton processes (2022) *Environmental Research*, 204, art. no. 111898.
13. Kirmizakis, P., Tawabini, B., Siddiq, O.M., Kalderis, D., Ntarlagiannis, D., Soupios, P. Adsorption of Arsenic on Fe-Modified Biochar and Monitoring Using Spectral Induced Polarization (2022) *Water (Switzerland)*, 14 (4), art. no. 563.
14. Zafeiriou, I., Gasparatos, D., Ioannou, D., Kalderis, D., Massas, I. Selenium Biofortification of Lettuce Plants (*Lactuca sativa* L.) as Affected by Se Species, Se Rate, and a Biochar Co-Application in a Calcareous Soil (2022) *Agronomy*, 12 (1), art. no. 131.
15. Çathioğlu, F., Akay, S., Turunç, E., Gözmen, B., Anastopoulos, I., Kayan, B., Kalderis, D. Preparation and application of Fe-modified banana peel in the adsorption of methylene blue: Process optimization using response surface methodology (2021) *Environmental Nanotechnology, Monitoring and Management*, 16, art. no. 100517.
16. Siddiq, M.O., Tawabini, B., Kirmizakis, P., Kalderis, D., Ntarlagiannis, D., Soupios, P. Combining geophysics and material science for environmental remediation: Real-time monitoring of Fe-biochar arsenic wastewater treatment (2021) *Chemosphere*, 284, art. no. 131390.
17. Anastopoulos, I., Ighalo, J.O., Adaobi Igwegbe, C., Giannakoudakis, D.A., Triantafyllidis, K.S., Pashalidis, I., Kalderis, D. Sunflower-biomass derived adsorbents for toxic/heavy metals removal from (waste) water (2021) *Journal of Molecular Liquids*, 342, art. no. 117540.
18. Çalışkan, M., Akay, S., Kayan, B., Baran, T., Kalderis, D. Preparation and application of a hydrochar-based palladium nanocatalyst for the reduction of nitroarenes (2021) *Molecules*, 26 (22), art. no. 6859.
19. Tsubota, T., Tsuchiya, S., Kusumoto, T., Kalderis, D. Assessment of biochar produced by flame-curtain pyrolysis as a precursor for the development of an efficient electric double-layer capacitor (2021) *Energies*, 14 (22), art. no. 7671.

20. Georgiou, E., Mihajlović, M., Petrović, J., Anastopoulos, I., Dosche, C., Pashalidis, I., Kalderis, D. Single-stage production of miscanthus hydrochar at low severity conditions and application as adsorbent of copper and ammonium ions (2021) *Bioresource Technology*, 337, art. no. 125458.
21. Biliás, F., Nikoli, T., Kalderis, D., Gasparatos, D. Towards a soil remediation strategy using biochar: Effects on soil chemical properties and bioavailability of potentially toxic elements (2021) *Toxics*, 9 (8), art. no. 184.
22. Alidokht, L., Anastopoulos, I., Ntarlagiannis, D., Soupios, P., Tawabini, B., Kalderis, D., Khataee, A. Recent advances in the application of nanomaterials for the remediation of arsenic-contaminated water and soil (2021) *Journal of Environmental Chemical Engineering*, 9 (4), art. no. 105533.
23. Akay, S., Öztürk, S., Kalderis, D., Kayan, B. Degradation, solubility and chromatographic studies of Ibuprofen under high temperature water conditions (2021) *Chemosphere*, 277, art. no. 130307.
24. Turunç, E., Akay, S., Baran, T., Kalderis, D., Tsubota, T., Kayan, B. An easily fabricated palladium nanocatalyst on magnetic biochar for Suzuki-Miyaura and aryl halide cyanation reactions (2021) *New Journal of Chemistry*, 45 (28), pp. 12519-12527.
25. Kapetanakis, T.N., Vardiambasis, I.O., Nikolopoulos, C.D., Konstantaras, A.I., Trang, T.K., Khuong, D.A., Tsubota, T., Keyikoglu, R., Khataee, A., Kalderis, D. Towards engineered hydrochars: Application of artificial neural networks in the hydrothermal carbonization of sewage sludge (2021) *Energies*, 14 (11), art. no. 3000.
26. Birer, A.M., Gözmen, B., Sönmez, Ö., Kalderis, D. Evaluation of sewage sludge biochar and modified derivatives as novel SPE adsorbents for monitoring of bisphenol A (2021) *Chemosphere*, 268, art. no. 128866.
27. Khataee, A., Kalderis, D., Motlagh, P.Y., Binas, V., Stefa, S., Konsolakis, M. Synthesis of copper (I, II) oxides/hydrochar nanocomposites for the efficient sonocatalytic degradation of organic contaminants (2021) *Journal of Industrial and Engineering Chemistry*, 95, pp. 73-82.
28. Sewu, D.D., Lee, D.S., Woo, S.H., Kalderis, D. Decolorization of triarylmethane dyes, malachite green, and crystal violet, by sewage sludge biochar: Isotherm, kinetics, and adsorption mechanism comparison (2021) *Korean Journal of Chemical Engineering*, 38 (3), pp. 531-539.
29. Akay, S., Baran, T., Kayan, B., Kalderis, D. Assessment of a Pd-Fe₃O₄-biochar nanocomposite as a heterogeneous catalyst for the solvent-free Suzuki-Miyaura reaction (2021) *Materials Chemistry and Physics*, 259, art. no. 124176.
30. Kayan, B., Gizir, A.M., Kalderis, D. Ultrasonic-assisted extraction of 10-deacetylbaccatin III from *Taxus baccata* L.: optimization using response

- surface methodology (2021) *Journal of the Iranian Chemical Society*, 18 (1), pp. 37-45.
31. Vardiambasis, I.O., Kapetanakis, T.N., Nikolopoulos, C.D., Trang, T.K., Tsubota, T., Keyikoglu, R., Khataee, A., Kalderis, D. Hydrochars as emerging biofuels: Recent advances and application of artificial neural networks for the prediction of heating values (2020) *Energies*, 13 (17), art. no. en13174572.
 32. Ali, S., Abbas, Z., Seleiman, M.F., Rizwan, M., Yavaş, İ., Alhammad, B.A., Shami, A., Hasanuzzaman, M., Kalderis, D. Glycine betaine accumulation, significance and interests for heavy metal tolerance in plants (2020) *Plants*, 9 (7), art. no. 896, pp. 1-23.
 33. Kwiatkowski, M., Kalderis, D. A complementary analysis of the porous structure of biochars obtained from biomass (2020) *Carbon Letters*, 30 (3), pp. 325-329.
 34. Kirmizakis, P., Kalderis, D., Ntarlagiannis, D., Soupios, P. Preliminary assessment on the application of biochar and spectral-induced polarization for wastewater treatment (2020) *Near Surface Geophysics*, 18 (2), pp. 109-122.
 35. Çatlıoğlu, F.N., Akay, S., Gözmen, B., Turunc, E., Anastopoulos, I., Kayan, B., Kalderis, D. Fe-modified hydrochar from orange peel as adsorbent of food colorant Brilliant Black: process optimization and kinetic studies (2020) *International Journal of Environmental Science and Technology*, 17 (4), pp. 1975-1990.
 36. Ali, S., Abbas, Z., Rizwan, M., Zaheer, I.E., Yavas, I., Ünay, A., Abdel-Daim, M.M., Bin-Jumah, M., Hasanuzzaman, M., Kalderis, D. Application of floating aquatic plants in phytoremediation of heavy metals polluted water: A review (2020) *Sustainability (Switzerland)*, 12 (5), art. no. 1927.
 37. Kalderis, D., Tsuchiya, S., Phillipou, K., Paschalidou, P., Pashalidis, I., Tashima, D., Tsubota, T. Utilization of pine tree biochar produced by flame-curtain pyrolysis in two non-agricultural applications (2020) *Bioresource Technology Reports*, 9, art. no. 100384.
 38. Khataee, A., Kalderis, D., Gholami, P., Fazli, A., Moschogiannaki, M., Binas, V., Lykaki, M., Konsolakis, M. Cu₂O-CuO@biochar composite: Synthesis, characterization and its efficient photocatalytic performance (2019) *Applied Surface Science*, 498, art. no. 143846.
 39. Muter, O., Khroustalyova, G., Rimkus, A., Kalderis, D., Ruchala, J., Sibirny, A., Rapoport, A. Evaluation of the enhanced resistance of *Ogataea* (Hansenula) polymorpha to benzalkonium chloride as a resource for bioremediation technologies (2019) *Process Biochemistry*, 87, pp. 157-163.
 40. Kalderis, D., Papameletiou, G., Kayan, B. Assessment of Orange Peel Hydrochar as a Soil Amendment: Impact on Clay Soil Physical Properties and Potential Phytotoxicity (2019) *Waste and Biomass Valorization*, 10 (11), pp. 3471-3484.

41. Görmez, F., Görmez, Ö., Gözmen, B., Kalderis, D. Degradation of chloramphenicol and metronidazole by electro-Fenton process using graphene oxide-Fe₃O₄ as heterogeneous catalyst (2019) *Journal of Environmental Chemical Engineering*, 7 (2), art. no. 102990.
42. Rad, T.S., Khataee, A., Kayan, B., Kalderis, D., Akay, S. Synthesis of pumice-TiO₂ nanoflakes for sonocatalytic degradation of famotidine (2018) *Journal of Cleaner Production*, 202, pp. 853-862.
43. Khataee, A., Gholami, P., Kayan, B., Kalderis, D., Dinpazhoh, L., Akay, S. Synthesis of ZrO₂ nanoparticles on pumice and tuff for sonocatalytic degradation of rifampin (2018) *Ultrasonics Sonochemistry*, 48, pp. 349-361.
44. Khataee, A., Gholami, P., Kalderis, D., Pachatouridou, E., Konsolakis, M. Preparation of novel CeO₂-biochar nanocomposite for sonocatalytic degradation of a textile dye (2018) *Ultrasonics Sonochemistry*, 41, pp. 503-513.
45. Khataee, A., Kayan, B., Gholami, P., Kalderis, D., Akay, S., Dinpazhoh, L. Sonocatalytic degradation of Reactive Yellow 39 using synthesized ZrO₂ nanoparticles on biochar (2017) *Ultrasonics Sonochemistry*, 39, pp. 540-549.
46. Khataee, A., Kayan, B., Gholami, P., Kalderis, D., Akay, S. Sonocatalytic degradation of an anthraquinone dye using TiO₂-biochar nanocomposite (2017) *Ultrasonics Sonochemistry*, 39, pp. 120-128.
47. Akay, S., Kayan, B., Kalderis, D., Arslan, M., Yagci, Y., Kiskan, B. Poly(benzoxazine-co-sulfur): An efficient sorbent for mercury removal from aqueous solution (2017) *Journal of Applied Polymer Science*, 134 (38), art. no. 45306.
48. Kalderis, D., Kayan, B., Akay, S., Kulaksiz, E., Gözmen, B. Adsorption of 2,4-dichlorophenol on paper sludge/wheat husk biochar: Process optimization and comparison with biochars prepared from wood chips, sewage sludge and hog fuel/demolition waste (2017) *Journal of Environmental Chemical Engineering*, 5 (3), pp. 2222-2231.
49. Kwiatkowski, M., Kalderis, D., Diamadopoulos, E. Numerical analysis of the influence of the impregnation ratio on the microporous structure formation of activated carbons, prepared by chemical activation of waste biomass with phosphoric(V) acid (2017) *Journal of Physics and Chemistry of Solids*, 105, pp. 81-85.
50. Kayan, B., Akay, S., Gözmen, B., Gizir, A.M., Demirel, M., Kalderis, D. Degradation of nitroaromatic compounds in subcritical water: Application of response surface methodology (2017) *Desalination and Water Treatment*, 77, pp. 237-246.

51. Kulaksiz, E., Gözmen, B., Kayan, B., Kalderis, D. Adsorption of Malachite Green on Fe-modified biochar: Influencing factors and process optimization (2017) *Desalination and Water Treatment*, 74, pp. 383-394.
52. Khataee, A., Kayan, B., Kalderis, D., Karimi, A., Akay, S., Konsolakis, M. Ultrasound-assisted removal of Acid Red 17 using nanosized Fe₃O₄-loaded coffee waste hydrochar (2017) *Ultrasonics Sonochemistry*, 35, pp. 72-80.
53. Kayan, B., Akay, S., Kulaksız, E., Gözmen, B., Kalderis, D. Acid Red 1 and Acid Red 114 decolorization in H₂O₂-modified subcritical water: Process optimization and application on a textile wastewater (2017) *Desalination and Water Treatment*, 59, pp. 248-261.
54. Şener, M., Kayan, B., Akay, S., Gözmen, B., Kalderis, D. Fe-modified sporopollenin as a composite biosorbent for the removal of Pb²⁺ from aqueous solutions (2016) *Desalination and Water Treatment*, 57 (58), pp. 28294-28312.
55. Bachmann, H.J., Bucheli, T.D., Dieguez-Alonso, A., Fabbri, D., Knicker, H., Schmidt, H.-P., Ulbricht, A., Becker, R., Buscaroli, A., Buerge, D., Cross, A., Dickinson, D., Enders, A., Esteves, V.I., Evangelou, M.W.H., Fellet, G., Friedrich, K., Gasco Guerrero, G., Glaser, B., Hanke, U.M., Hanley, K., Hilber, I., Kalderis, D., Leifeld, J., Masek, O., Mumme, J., Carmona, M.P., Calvelo Pereira, R., Rees, F., Rombolà, A.G., De La Rosa, J.M., Sakrabani, R., Sohi, S., Soja, G., Valagussa, M., Verheijen, F., Zehetner, F. Toward the Standardization of Biochar Analysis: The COST Action TD1107 Interlaboratory Comparison (2016) *Journal of Agricultural and Food Chemistry*, 64 (2), pp. 513-527.
56. Chakrabarti, S., Dicke, C., Kalderis, D., Kern, J. Rice husks and their hydrochars cause unexpected stress response in the nematode *Caenorhabditis elegans*: reduced transcription of stress-related genes (2015) *Environmental Science and Pollution Research*, 22 (16), pp. 12092-12103.
57. Kirmizakis, P., Tsamoutsoglou, C., Kayan, B., Kalderis, D. Subcritical water treatment of landfill leachate: Application of response surface methodology (2014) *Journal of Environmental Management*, 146, pp. 9-15.
58. Agrafioti, E., Kalderis, D., Diamadopoulos, E. Ca and Fe modified biochars as adsorbents of arsenic and chromium in aqueous solutions (2014) *Journal of Environmental Management*, 146, pp. 444-450.
59. Kalderis, D., Kotti, M.S., Méndez, A., Gascó, G. Characterization of hydrochars produced by hydrothermal carbonization of rice husk (2014) *Solid Earth*, 5 (1), pp. 477-483.
60. Agrafioti, E., Kalderis, D., Diamadopoulos, E. Arsenic and chromium removal from water using biochars derived from rice husk, organic solid wastes and sewage sludge (2014) *Journal of Environmental Management*, 133, pp. 309-314.

61. Agrafioti, E., Bouras, G., Kalderis, D., Diamadopoulos, E. Biochar production by sewage sludge pyrolysis (2013) *Journal of Analytical and Applied Pyrolysis*, 101, pp. 72-78.
62. Pellerá, F.-M., Giannis, A., Kalderis, D., Anastasiadou, K., Stegmann, R., Wang, J.-Y., Gidarakos, E. Adsorption of Cu(II) ions from aqueous solutions on biochars prepared from agricultural by-products (2012) *Journal of Environmental Management*, 96 (1), pp. 35-42.
63. Kalderis, D., Juhasz, A.L., Boopathy, R., Comfort, S. Soils contaminated with explosives: Environmental fate and evaluation of state-of-the-art remediation processes (IUPAC technical report) (2011) *Pure and Applied Chemistry*, 83 (7), pp. 1407-1484.
64. Daskalaki, V.M., Timotheatou, E.S., Katsaounis, A., Kalderis, D. Degradation of Reactive Red 120 using hydrogen peroxide in subcritical water (2011) *Desalination*, 274 (1-3), pp. 200-205.
65. Kalderis D. and Diamadopoulos E. Valorization of solid waste residues from olive oil mills: A review, *Terrestrial and Aquatic Environmental Toxicology* 4 (Special Issue 1), 2010, 7-20
66. Panakoulis, T., Kalatzis, P., Kalderis, D., Katsaounis, A. Electrochemical degradation of Reactive Red 120 using DSA and BDD anodes (2010) *Journal of Applied Electrochemistry*, 40 (10), pp. 1759-1765.
67. Kalderis, D., Aivalioti, M., Gidarakos, E. Options for sustainable sewage sludge management in small wastewater treatment plants on islands: The case of Crete (2010) *Desalination*, 260 (1-3), pp. 211-217.
68. Anastasakis, K., Kalderis, D., Diamadopoulos, E. Flocculation behavior of mallow and okra mucilage in treating wastewater (2009) *Desalination*, 249 (2), pp. 786-791.
69. Koumantakis, E., Anastasiadou, K., Kalderis, D., Gidarakos, E. Asbestos pollution in an inactive mine: Determination of asbestos fibers in the deposit tailings and water (2009) *Journal of Hazardous Materials*, 167 (1-3), pp. 1080-1088.
70. Kalderis, D., Hawthorne, S.B., Clifford, Anthony.A., Gidarakos, E. Interaction of soil, water and TNT during degradation of TNT on contaminated soil using subcritical water (2008) *Journal of Hazardous Materials*, 159 (2-3), pp. 329-334.
71. Kalderis, D., Koutoulakis, D., Paraskeva, P., Diamadopoulos, E., Ota, E., Valle, J.O.d., Fernández-Pereira, C. Adsorption of polluting substances on activated carbons prepared from rice husk and sugarcane bagasse (2008) *Chemical Engineering Journal*, 144 (1), pp. 42-50.
72. Kalderis, D., Bethanis, S., Paraskeva, P., Diamadopoulos, E. Production of activated carbon from bagasse and rice husk by a single-stage chemical

- activation method at low retention times (2008) *Bioresource Technology*, 99 (15), pp. 6809-6816.
73. Kalderis, D., Tsolaki, E., Antoniou, C., Diamadopoulos, E. Characterization and treatment of wastewater produced during the hydro-metallurgical extraction of germanium from fly ash (2008) *Desalination*, 230 (1-3), pp. 162-174.
 74. Paraskeva, P., Kalderis, D., Diamadopoulos, E. Production of activated carbon from agricultural by-products (2008) *Journal of Chemical Technology and Biotechnology*, 83 (5), pp. 581-592.
 75. Hawthorne, S.B., Lagadec, A.J.M., Kalderis, D., Lilke, A.V., Miller, D.J. Pilot-scale destruction of TNT, RDX, and HMX on contaminated soils using subcritical water (2000) *Environmental Science and Technology*, 34 (15), pp. 3224-3228.

Book chapters (2)

1. Anastopoulos, I., Giannopoulos, G., Islam, A., Ighalo, J.O., Iwuchukwu, F.U., Pashalidis, I., Kalderis, D., Giannakoudakis, D.A., Nair, V., Lima, E.C. Potential environmental applications of *Helianthus annuus* (sunflower) residue-based adsorbents for dye removal in (waste)waters (2022) *Biomass-Derived Materials for Environmental Applications*, pp. 307-318.
2. Philippou, K., Anastopoulos, I., Pashalidis, I., Hosseini-Bandegharaei, A., Usman, M., Kornaros, M., Omirou, M., Kalderis, D., Milojković, J.V., Lopičić, Z.R., Abatal, M. The application of pine-based adsorbents to remove potentially toxic elements from aqueous solutions (2021) *Sorbents Materials for Controlling Environmental Pollution: Current State and Trends*, pp. 113-133.

Publications in Conferences

1. Athanasios Balidakis, Georgios Giannopoulos, **Dimitrios Kalderis**, Ioannis Ipsilantis, Theodora Matsi, Sewage sludge stabilization with clay minerals and biochar, 8th International Conference on Sustainable Solid Waste Management, 23-25th of June 2021, Thessaloniki, Greece
2. Zeynep Görkem DOĞAROĞLU, Yağmur UYSAL, **Dimitrios Kalderis**, Investigation of the viability of biochar-doped hydrogels in the fight against drought, 7th International Mardin Artuklu Scientific Researches Conference, 10-12th of December 2021, Mardin, Turkey
3. Toshiki Tsubota, Shion Tsuchiya, **Dimitrios Kalderis**, Ioannis Pashalidis, Daisuke Tashima, Qualitative assessment of biochar produced from low

- technology pyrolysis towards non-agricultural applications, IBI Biochar World Congress, 10-14th of November 2019, Seoul, South Korea.
4. E. Syrganides, I. Ipsilantis, D. Gasparatos, **D. Kalderis**, Do Biochar and arbuscular mycorrhizal fungi cooperate in improving lettuce (*Lactuca sativa* L.) growth and nutrition in a saline soil? 8th Conference of the Hellenic Scientific Society of Mikrobiokosmos, 18-20th of April 2019, Patras, Greece.
 5. O. Muter, G. Khroustalyova, **D. Kalderis**, A. Sibirny, A. Rapoport. Tools for utilization of distillery industry waste-yeast biomass in bioremediation technologies, 6th International Conference on Sustainable Solid Waste Management, 13-16th of June 2018, Naxos, Greece.
 6. **D. Kalderis**, G. Papameletiou, B. Kayan, G. Stavroulakis, The effect of orange peel hydrochar on clay soil physical properties. 3rd Asia Pacific Biochar Conference, 19-22nd of October 2016, Chuncheon, South Korea
 7. Effects of rice husks and their chars from hydrothermal carbonization on the germination rate and root length of *Lepidium sativum*. Jürgen Kern, Irina Mukhina, Christiane Dicke, Giacomo Lanza, and **Dimitrios Kalderis**. Geophysical Research Abstracts, Vol. 17, EGU2015-10002, 2015 - EGU General Assembly 2015 (C14).
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