

# Avanthi Deshani Igalavithana

## List of Publications by Year in descending order

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Version: 2024-02-01

41  
papers

3,673  
citations

185998

28  
h-index

288905

40  
g-index

43  
all docs

43  
docs citations

43  
times ranked

3543  
citing authors

#	ARTICLE	IF	CITATIONS
1	Metal contamination and bioremediation of agricultural soils for food safety and sustainability. <i>Nature Reviews Earth &amp; Environment</i> , 2020, 1, 366-381.	12.2	493
2	Biochar-supported nZVI (nZVI/BC) for contaminant removal from soil and water: A critical review. <i>Journal of Hazardous Materials</i> , 2019, 373, 820-834.	6.5	307
3	Heavy metal immobilization and microbial community abundance by vegetable waste and pine cone biochar of agricultural soils. <i>Chemosphere</i> , 2017, 174, 593-603.	4.2	245
4	Value-added chemicals from food supply chain wastes: State-of-the-art review and future prospects. <i>Chemical Engineering Journal</i> , 2019, 375, 121983.	6.6	218
5	Biochar-based adsorbents for carbon dioxide capture: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 119, 109582.	8.2	212
6	Advances and future directions of biochar characterization methods and applications. <i>Critical Reviews in Environmental Science and Technology</i> , 2017, 47, 2275-2330.	6.6	194
7	Removal of hexavalent chromium in aqueous solutions using biochar: Chemical and spectroscopic investigations. <i>Science of the Total Environment</i> , 2018, 625, 1567-1573.	3.9	190
8	Biochar-induced metal immobilization and soil biogeochemical process: An integrated mechanistic approach. <i>Science of the Total Environment</i> , 2020, 698, 134112.	3.9	139
9	Gasification biochar from biowaste (food waste and wood waste) for effective CO <sub>2</sub> adsorption. <i>Journal of Hazardous Materials</i> , 2020, 391, 121147.	6.5	132
10	Recent advances in control technologies for non-point source pollution with nitrogen and phosphorous from agricultural runoff: current practices and future prospects. <i>Applied Biological Chemistry</i> , 2020, 63, .	0.7	129
11	Characterization of bioenergy biochar and its utilization for metal/metalloid immobilization in contaminated soil. <i>Science of the Total Environment</i> , 2018, 640-641, 704-713.	3.9	110
12	Sustainable gasification biochar as a high efficiency adsorbent for CO <sub>2</sub> capture: A facile method to designer biochar fabrication. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 124, 109785.	8.2	107
13	Carbon dioxide capture in biochar produced from pine sawdust and paper mill sludge: Effect of porous structure and surface chemistry. <i>Science of the Total Environment</i> , 2020, 739, 139845.	3.9	91
14	Arsenic(V) biosorption by charred orange peel in aqueous environments. <i>International Journal of Phytoremediation</i> , 2016, 18, 442-449.	1.7	90
15	Fe(III) loaded chitosan-biochar composite fibers for the removal of phosphate from water. <i>Journal of Hazardous Materials</i> , 2021, 415, 125464.	6.5	88
16	Sustainable removal of Hg(II) by sulfur-modified pine-needle biochar. <i>Journal of Hazardous Materials</i> , 2020, 388, 122048.	6.5	71
17	Soil lead immobilization by biochars in short-term laboratory incubation studies. <i>Environment International</i> , 2019, 127, 190-198.	4.8	70
18	Recent advances in mitigating membrane biofouling using carbon-based materials. <i>Journal of Hazardous Materials</i> , 2020, 382, 120976.	6.5	67

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19	Effect of Corn Residue Biochar on the Hydraulic Properties of Sandy Loam Soil. Sustainability, 2017, 9, 266.	1.6	65
20	Effect of biochars pyrolyzed in N <sub>2</sub> and CO <sub>2</sub> , and feedstock on microbial community in metal(loid)s contaminated soils. Environment International, 2019, 126, 791-801.	4.8	52
21	Slow pyrolyzed biochars from crop residues for soil metal(loid) immobilization and microbial community abundance in contaminated agricultural soils. Chemosphere, 2017, 177, 157-166.	4.2	50
22	Mechanistic insights of 2,4-D sorption onto biochar: Influence of feedstock materials and biochar properties. Bioresource Technology, 2017, 246, 160-167.	4.8	50
23	Effects of selenium on the uptake of toxic trace elements by crop plants: A review. Critical Reviews in Environmental Science and Technology, 2021, 51, 2531-2566.	6.6	50
24	Metal(loid) immobilization in soils with biochars pyrolyzed in N <sub>2</sub> and CO <sub>2</sub> environments. Science of the Total Environment, 2018, 630, 1103-1114.	3.9	48
25	Biochar alters chemical and microbial properties of microplastic-contaminated soil. Environmental Research, 2022, 209, 112807.	3.7	43
26	Biochar Effects on Rice Paddy: Meta-analysis. Advances in Agronomy, 2018, , 1-32.	2.4	35
27	Assessment of Soil Health in Urban Agriculture: Soil Enzymes and Microbial Properties. Sustainability, 2017, 9, 310.	1.6	34
28	Efficient succinic acid production using a biochar-treated textile waste hydrolysate in an in situ fibrous bed bioreactor. Biochemical Engineering Journal, 2019, 149, 107249.	1.8	34
29	The Effects of Biochar Amendment on Soil Fertility. SSSA Special Publication Series, 0, , 123-144.	0.2	30
30	Effects of aging and weathering on immobilization of trace metals/metalloids in soils amended with biochar. Environmental Sciences: Processes and Impacts, 2020, 22, 1790-1808.	1.7	29
31	Energy, economic, and environmental impacts of sustainable biochar systems in rural China. Critical Reviews in Environmental Science and Technology, 2022, 52, 1063-1091.	6.6	25
32	Engineered/designer hierarchical porous carbon materials for organic pollutant removal from water and wastewater: A critical review. Critical Reviews in Environmental Science and Technology, 2021, 51, 2295-2328.	6.6	24
33	Effects of field scale in situ biochar incorporation on soil environment in a tropical highly weathered soil. Environmental Pollution, 2021, 272, 116009.	3.7	23
34	Combined effect of biochar and soil moisture on soil chemical properties and microbial community composition in microplastic-contaminated agricultural soil. Soil Use and Management, 2022, 38, 1446-1458.	2.6	22
35	Sulphamethazine in poultry manure changes carbon and nitrogen mineralisation in soils. Chemistry and Ecology, 2016, 32, 899-918.	0.6	21
36	Microplastics and Potentially Toxic Elements: Potential Human Exposure Pathways through Agricultural Lands and Policy Based Countermeasures. Microplastics, 2022, 1, 102-120.	1.6	20

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37	Distribution characteristics of Cd in different types of leaves of <i>Festuca arundinacea</i> intercropped with <i>Cicer arietinum</i> L.: A new strategy to remove pollutants by harvesting senescent and dead leaves. <i>Environmental Research</i> , 2019, 179, 108801.	3.7	17
38	Effects of elevated CO <sub>2</sub> on the phytoremediation efficiency of <i>Noccaea caerulea</i> . <i>Environmental Pollution</i> , 2019, 255, 113169.	3.7	16
39	Heavy metal dissolution mechanisms from electrical industrial sludge. <i>Science of the Total Environment</i> , 2019, 696, 133922.	3.9	16
40	Determining soil quality in urban agricultural regions by soil enzyme-based index. <i>Environmental Geochemistry and Health</i> , 2017, 39, 1531-1544.	1.8	8
41	Potentially Toxic Element Contamination and Its Impact on Soil Biological Quality in Urban Agriculture: A Critical Review. <i>Soil Biology</i> , 2015, , 81-101.	0.6	5