Muhammad Afzal

List of Publications by Year
in descending order

81 papers	5,468 citations	57758 44 h-index	82547 72 g-index
82 all docs	82 docs citations	82 times ranked	3929 citing authors

#	Article	IF	Citations
1	Potential role of phytohormones and plant growth-promoting rhizobacteria in abiotic stresses: consequences for changing environment. Environmental Science and Pollution Research, 2015, 22, 4907-4921.	5.3	459
2	Plantâ€“bacteria partnerships for the remediation of hydrocarbon contaminated soils. Chemosphere, 2013, 90, 1317-1332.	8.2	328
3	Endophytic bacteria: Prospects and applications for the phytoremediation of organic pollutants. Chemosphere, 2014, 117, 232-242.	8.2	308
4	Enhanced degradation of textile effluent in constructed wetland system using Typha domingensis and textile effluent-degrading endophytic bacteria. Water Research, 2014, 58, 152-159.	11.3	168
5	Soil type affects plant colonization, activity and catabolic gene expression of inoculated bacterial strains during phytoremediation of diesel. Journal of Hazardous Materials, 2011, 186, 1568-1575.	12.4	165
6	Hydrocarbon degradation, plant colonization and gene expression of alkane degradation genes by endophytic Enterobacter ludwigii strains. Environmental Pollution, 2011, 159, 2675-2683.	7.5	164
7	Plantâ€“bacteria partnerships for the remediation of persistent organic pollutants. Environmental Science and Pollution Research, 2017, 24, 4322-4336.	5.3	164
8	The Inoculation Method Affects Colonization and Performance of Bacterial Inoculant Strains in the Phytoremediation of Soil Contaminated with Diesel Oil. International Journal of Phytoremediation, 2012, 14, 35-47.	3.1	156
9	Inoculation with bacteria in floating treatment wetlands positively modulates the phytoremediation of oil field wastewater. Journal of Hazardous Materials, 2018, 349, 242-251.	12.4	153
10	The endophyte Enterobacter sp. FD17: a maize growth enhancer selected based on rigorous testing of plant beneficial traits and colonization characteristics. Biology and Fertility of Soils, 2014, 50, 249-262.	4.3	133
11	Enhanced remediation of sewage effluent by endophyte-assisted floating treatment wetlands. Ecological Engineering, 2015, 84, 58-66.	3.6	122
12	Cr-resistant rhizo- and endophytic bacteria associated with Prosopis juliflora and their potential as phytoremediation enhancing agents in metal-degraded soils. Frontiers in Plant Science, 2014, 5, 755.	3.6	114
13	Floating treatment wetlands as a suitable option for large-scale wastewater treatment. Nature Sustainability, 2019, 2, 863-871.	23.7	113
14	On-site performance of floating treatment wetland macrocosms augmented with dye-degrading bacteria for the remediation of textile industry wastewater. Journal of Cleaner Production, 2019, 217, 541-548.	9.3	109
15	Phytoremediation: recent advances in plant-endophytic synergistic interactions. Plant and Soil, 2016, 405, 179-195.	3.7	102
16	Endophytic bacteria enhance remediation of tannery effluent in constructed wetlands vegetated with <i>Leptochloa fusca</i>. International Journal of Phytoremediation, 2018, 20, 121-128.	3.1	94
17	Large-scale remediation of oil-contaminated water using floating treatment wetlands. Npj Clean Water, 2019, 2, .	8.0	91
18	Bacterial Rhizosphere and Endosphere Populations Associated with Grasses and Trees to be Used for Phytoremediation of Crude Oil Contaminated Soil. Bulletin of Environmental Contamination and Toxicology, 2015, 94, 314-320.	2.7	89

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19	Enhanced remediation of chlorpyrifos from soil using ryegrass (Lollium multiflorum) and chlorpyrifos-degrading bacterium Bacillus pumilus C2A1. Journal of Hazardous Materials, 2012, 237-238, 110-115.	12.4	87
20	Advances in Elucidating Beneficial Interactions Between Plants, Soil, and Bacteria. Advances in Agronomy, 2013, , 381-445.	5.2	86
21	Floating Wetlands: A Sustainable Tool for Wastewater Treatment. Clean - Soil, Air, Water, 2018, 46, 1800120.	1.1	85
22	Treatment of the textile industry effluent in a pilot-scale vertical flow constructed wetland system augmented with bacterial endophytes. Science of the Total Environment, 2018, 645, 966-973.	8.0	84
23	Inoculation method affects colonization and activity of Burkholderia phytofirmans PsJN during phytoremediation of diesel-contaminated soil. International Biodeterioration and Biodegradation, 2013, 85, 331-336.	3.9	80
24	Rhamnolipids and nutrients boost remediation of crude oil-contaminated soil by enhancing bacterial colonization and metabolic activities. International Biodeterioration and Biodegradation, 2016, 115, 192-198.	3.9	79
25	Characteristics of phenol biodegradation in saline solutions by monocultures of Pseudomonas aeruginosa and Pseudomonas pseudomallei. Journal of Hazardous Materials, 2007, 149, 60-66.	12.4	76
26	Role of Microorganisms in the Remediation of Wastewater in Floating Treatment Wetlands: A Review. Sustainability, 2020, 12, 5559.	3.2	75
27	Nutrients Can Enhance the Abundance and Expression of Alkane Hydroxylase CYP153 Gene in the Rhizosphere of Ryegrass Planted in Hydrocarbon-Polluted Soil. PLoS ONE, 2014, 9, e111208.	2.5	75
28	Integrated perspectives on the use of bacterial endophytes in horizontal flow constructed wetlands for the treatment of liquid textile effluent: Phytoremediation advances in the field. Journal of Environmental Management, 2018, 224, 387-395.	7.8	71
29	Remediation of sewage and industrial effluent using bacterially assisted floating treatment wetlands vegetated with Typha domingensis. Water Science and Technology, 2016, 74, 2192-2201.	2.5	70
30	Successful phytoremediation of crude-oil contaminated soil at an oil exploration and production company by plants-bacterial synergism. International Journal of Phytoremediation, 2018, 20, 675-681.	3.1	70
31	Removal of pharmaceuticals and personal care products using constructed wetlands: effective plant-bacteria synergism may enhance degradation efficiency. Environmental Science and Pollution Research, 2019, 26, 21109-21126.	5.3	68
32	Combined use of Alkane-Degrading and Plant Growth-Promoting Bacteria Enhanced Phytoremediation of Diesel Contaminated soil. International Journal of Phytoremediation, 2014, 16, 1268-1277.	3.1	67
33	Enhancement of oil field-produced wastewater remediation by bacterially-augmented floating treatment wetlands. Chemosphere, 2019, 217, 576-583.	8.2	66
34	Assessment of Heavy Metal Contamination in Soil and Groundwater at Leather Industrial Area of Kasur, Pakistan. Clean - Soil, Air, Water, 2014, 42, 1133-1139.	1.1	62
35	Phragmites australis in combination with hydrocarbons degrading bacteria is a suitable option for remediation of diesel-contaminated water in floating wetlands. Chemosphere, 2020, 240, 124890.	8.2	62
36	Comparing the performance of four macrophytes in bacterial assisted floating treatment wetlands for the removal of trace metals (Fe, Mn, Ni, Pb, and Cr) from polluted river water. Chemosphere, 2020, 243, 125353.	8.2	60

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37	Inoculum pretreatment affects bacterial survival, activity and catabolic gene expression during phytoremediation of diesel contaminated soil. Chemosphere, 2013, 91, 663-668.	8.2	53
38	Plant-endophyte synergism in constructed wetlands enhances the remediation of tannery effluent. Water Science and Technology, 2018, 77, 1262-1270.	2.5	53
39	Biodegradation of kerosene in soil by a mixed bacterial culture under different nutrient conditions. International Biodeterioration and Biodegradation, 2008, 61, 161-166.	3.9	52
40	Phragmites australis â€" a helophytic grass â€" can establish successful partnership with phenol-degrading bacteria in a floating treatment wetland. Saudi Journal of Biological Sciences, 2019, 26, 1179-1186.	3.8	52
41	Constructed wetlands as a sustainable technology for wastewater treatment with emphasis on chromium-rich tannery wastewater. Journal of Hazardous Materials, 2022, 422, 126926.	12.4	52
42	Bacterial endophytes enhance phytostabilization in soils contaminated with uranium and lead. International Journal of Phytoremediation, 2017, 19, 937-946.	3.1	49
43	Influence of sub-lethal crude oil concentration on growth, water relations and photosynthetic capacity of maize (Zea mays L.) plants. Environmental Science and Pollution Research, 2016, 23, 18320-18331.	5.3	48
44	Enhanced degradation of phenol in floating treatment wetlands by plant-bacterial synergism. International Journal of Phytoremediation, 2018, 20, 692-698.	3.1	47
45	Remediation of textile bleaching effluent by bacterial augmented horizontal flow and vertical flow constructed wetlands: A comparison at pilot scale. Science of the Total Environment, 2019, 685, 370-379.	8.0	47
46	Potentialities of floating wetlands for the treatment of polluted water of river Ravi, Pakistan. Ecological Engineering, 2019, 133, 167-176.	3.6	46
47	Paper and board mill effluent treatment with the combined biologicalâ€"coagulationâ€"filtration pilot scale reactor. Bioresource Technology, 2008, 99, 7383-7387.	9.6	38
48	Implementation of Floating Treatment Wetlands for Textile Wastewater Management: A Review. Sustainability, 2020, 12, 5801.	3.2	38
49	Endophytic <i>Burkholderia</i> sp. strain Ps<scp>JN</scp> Improves Plant Growth and Phytoremediation of Soil Irrigated with Textile Effluent. Clean - Soil, Air, Water, 2014, 42, 1304-1310.	1.1	36
50	Remediation of polluted river water by floating treatment wetlands. Water Science and Technology: Water Supply, 2019, 19, 967-977.	2.1	35
51	Bioaugmentation of floating treatment wetlands for the remediation of textile effluent. Water and Environment Journal, 2019, 33, 124-134.	2.2	35
52	Floating treatment wetlands as biological buoyant filters for wastewater reclamation. International Journal of Phytoremediation, 2019, 21, 1273-1289.	3.1	32
53	Enhanced remediation of chlorpyrifos by ryegrass (<i>Lolium multiflorum</i>) and a chlorpyrifos degrading bacterial endophyte<i>Mezorhizobium</i>sp. HN3. International Journal of Phytoremediation, 2016, 18, 126-133.	3.1	31
54	Bacterial Augmented Floating Treatment Wetlands for Efficient Treatment of Synthetic Textile Dye Wastewater. Sustainability, 2020, 12, 3731.	3.2	29

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55	Bioremediation of tannery effluent by Cr- and salt-tolerant bacterial strains. Environmental Monitoring and Assessment, 2018, 190, 716.	2.7	25
56	Unveiling the Potential of Novel Macrophytes for the Treatment of Tannery Effluent in Vertical Flow Pilot Constructed Wetlands. Water (Switzerland), 2020, 12, 549.	2.7	22
57	Evaluating bioenergy potential of the Para grass (Brachiaria mutica) biomass produced on a land-free cultivation system while keeping the water-energy-environment nexus sustainable. Energy Conversion and Management, 2021, 245, 114590.	9.2	22
58	Characterization of Hydrocarbon-Degrading Bacteria in Constructed Wetland Microcosms Used to Treat Crude Oil Polluted Water. Bulletin of Environmental Contamination and Toxicology, 2019, 102, 358-364.	2.7	20
59	Effects of Inoculum Density on Plant Growth and Hydrocarbon Degradation. Pedosphere, 2016, 26, 774-778.	4.0	19
60	Organic Micropollutants in the Environment: Ecotoxicity Potential and Methods for Remediation. , 2017, , 65-99.		16
61	Augmentation with potential endophytes enhances phytostabilization of Cr in contaminated soil. Environmental Science and Pollution Research, 2018, 25, 7021-7032.	5.3	16
62	Kinetics of<i>p</i>-nitrophenol degradation by<i>Pseudomonas pseudomallei</i>wild and mutant strains. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2007, 42, 1147-1154.	1.7	15
63	Cyperus laevigatus L. Enhances Diesel Oil Remediation in Synergism with Bacterial Inoculation in Floating Treatment Wetlands. Sustainability, 2020, 12, 2353.	3.2	15
64	Effective plant-endophyte interplay can improve the cadmium hyperaccumulation in Brachiaria mutica. World Journal of Microbiology and Biotechnology, 2019, 35, 188.	3.6	14
65	Enhanced remediation of tannery effluent in constructed wetlands augmented with endophytic bacteria. , 0, 102, 93-100.		12
66	Induced systemic tolerance mediated by plant-microbe interaction in maize (Zea mays L.) plants under hydrocarbon contamination. Chemosphere, 2022, 290, 133327.	8.2	11
67	Operational parameters optimization for remediation of crude oil-polluted water in floating treatment wetlands using response surface methodology. Scientific Reports, 2022, 12, 4566.	3.3	11
68	Elucidating the Potential of Vertical Flow-Constructed Wetlands Vegetated with Different Wetland Plant Species for the Remediation of Chromium-Contaminated Water. Sustainability, 2022, 14, 5230.	3.2	11
69	Evaluation of Toxicity on Ctenopharyngodon idella Due to Tannery Effluent Remediated by Constructed Wetland Technology. Processes, 2020, 8, 612.	2.8	10
70	Plant-Microbe Synergism in Floating Treatment Wetlands for the Enhanced Removal of Sodium Dodecyl Sulphate from Water. Sustainability, 2021, 13, 2883.	3.2	10
71	Treatment of Oil Refinery Wastewater Using Pilot Scale Fed Batch Reactor Followed by Coagulation and Sand Filtration. American Journal of Environmental Protection, 2013, 1, 10-13.	0.4	10
72	Floating Treatment Wetlands (FTWs) is an Innovative Approach for the Remediation of Petroleum Hydrocarbons-Contaminated Water. Journal of Plant Growth Regulation, 2023, 42, 1402-1420.	5.1	10

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73	Ecology and Functional Potential of Endophytes in Bioremediation: A Molecular Perspective. , 2014, , 301-320.		9
74	Bioaugmentation-Enhanced Remediation of Crude Oil Polluted Water in Pilot-Scale Floating Treatment Wetlands. Water (Switzerland), 2021, 13, 2882.	2.7	9
75	Enhanced degradation of hydrocarbons by gamma ray induced mutant strain of Pseudomonas putida. Biotechnology Letters, 2019, 41, 391-399.	2.2	8
76	Enhanced remediation of Cr⁶⁺ in bacterialâ€assisted floating wetlands. Water and Environment Journal, 2020, 34, 970-978.	2.2	6
77	Bacterial bioaugmentation enhances hydrocarbon degradation, plant colonization and gene expression in dieselâ€contaminated soil. Physiologia Plantarum, 2021, 173, 58-66.	5.2	5
78	Investigating degradation metabolites and underlying pathway of azo dye â€œReactive Black 5â€•in bioaugmented floating treatment wetlands. Environmental Science and Pollution Research, 2021, 28, 65229-65242.	5.3	4
79	Constructed and Floating Wetlands for Sustainable Water Reclamation. Sustainability, 2022, 14, 1268.	3.2	2
80	Enhanced degradation of hydrocarbons in constructed wetlands aided with nutrients, surfactant, and aeration. International Journal of Phytoremediation, 2022, 24, 1163-1172.	3.1	2
81	Soil-free cultivation of Leptochloa fusca in the urban and industrial wastewaters produced a low-lignin biomass for bioethanol production. Sustainable Energy Technologies and Assessments, 2022, 52, 102305.	2.7	1