Sabry M. Shaheen

List of Publications by Citations

183 papers	8,135 citations	50 h-index	84 g-index
190 ext. papers	11,114 ext. citations	8.4 avg, IF	6.94 L-index

#	Paper	IF	Citations
183	Trace elements in the soil-plant interface: Phytoavailability, translocation, and phytoremediation–A review. *Earth-Science Reviews*, **2017**, 171, 621-645	10.2	396
182	Biochar application to low fertility soils: A review of current status, and future prospects. *Geoderma*, **2019**, 337, 536-554	6.7	357
181	Soil amendments for immobilization of potentially toxic elements in contaminated soils: A critical review. *Environment International*, **2020**, 134, 105046	12.9	352
180	Wood-based biochar for the removal of potentially toxic elements in water and wastewater: a critical review. *International Materials Reviews*, **2019**, 64, 216-247	16.1	228
179	Arsenic removal by perilla leaf biochar in aqueous solutions and groundwater: An integrated spectroscopic and microscopic examination. *Environmental Pollution*, **2018**, 232, 31-41	9.3	222
178	Impact of emerging and low cost alternative amendments on the (im)mobilization and phytoavailability of Cd and Pb in a contaminated floodplain soil. *Ecological Engineering*, **2015**, 74, 319-326	3.9	188
177	Health risk assessment of potentially toxic elements in soils along the Central Elbe River, Germany. *Environment International*, **2019**, 126, 76-88	12.9	184
176	A review of the distribution coefficients of trace elements in soils: influence of sorption system, element characteristics, and soil colloidal properties. *Advances in Colloid and Interface Science*, **2013**, 201-202, 43-56	14.3	173
175	A critical review on bioremediation technologies for Cr(VI)-contaminated soils and wastewater. *Critical Reviews in Environmental Science and Technology*, **2019**, 49, 1027-1078	11.1	171
174	Opportunities and challenges in the use of coal fly ash for soil improvements--a review. *Journal of Environmental Management*, **2014**, 145, 249-67	7.9	171
173	Bioavailability and risk assessment of potentially toxic elements in garden edible vegetables and soils around a highly contaminated former mining area in Germany. *Journal of Environmental Management*, **2017**, 186, 192-200	7.9	160
172	A critical prospective analysis of the potential toxicity of trace element regulation limits in soils worldwide: Are they protective concerning health risk assessment? - A review. *Environment International*, **2019**, 127, 819-847	12.9	160
171	Amendment of biochar reduces the release of toxic elements under dynamic redox conditions in a contaminated floodplain soil. *Chemosphere*, **2016**, 142, 41-7	8.4	149
170	Biochar composition-dependent impacts on soil nutrient release, carbon mineralization, and potential environmental risk: A review. *Journal of Environmental Management*, **2019**, 241, 458-467	7.9	145
169	Biochar affects the dissolved and colloidal concentrations of Cd, Cu, Ni, and Zn and their phytoavailability and potential mobility in a mining soil under dynamic redox-conditions. *Science of the Total Environment*, **2018**, 624, 1059-1071	10.2	144
168	Release of As, Ba, Cd, Cu, Pb, and Sr under pre-definite redox conditions in different rice paddy soils originating from the U.S.A. and Asia. *Geoderma*, **2016**, 270, 21-32	6.7	133
167	Redox effects on release kinetics of arsenic, cadmium, cobalt, and vanadium in Wax Lake Deltaic freshwater marsh soils. *Chemosphere*, **2016**, 150, 740-748	8.4	126

166	Arsenic removal by Japanese oak wood biochar in aqueous solutions and well water: Investigating arsenic fate using integrated spectroscopic and microscopic techniques. *Science of the Total Environment*, **2018**, 621, 1642-1651	10.2	122
165	A critical review on arsenic removal from water using biochar-based sorbents: The significance of modification and redox reactions. *Chemical Engineering Journal*, **2020**, 396, 125195	14.7	121
164	Geochemical fractions of chromium, copper, and zinc and their vertical distribution in floodplain soil profiles along the Central Elbe River, Germany. *Geoderma*, **2014**, 228-229, 142-159	6.7	113
163	Soil and maize contamination by trace elements and associated health risk assessment in the industrial area of Volos, Greece. *Environment International*, **2019**, 124, 79-88	12.9	98
162	Bamboo- and pig-derived biochars reduce leaching losses of dibutyl phthalate, cadmium, and lead from co-contaminated soils. *Chemosphere*, **2018**, 198, 450-459	8.4	97
161	Sorption and lability of cadmium and lead in different soils from Egypt and Greece. *Geoderma*, **2009** , 153, 61-68	6.7	97
160	Assessing the Mobilization of Cadmium, Lead, and Nickel Using a Seven-Step Sequential Extraction Technique in Contaminated Floodplain Soil Profiles Along the Central Elbe River, Germany. *Water, Air, and Soil Pollution*, **2014**, 225, 1	2.6	91
159	Exploring the arsenic removal potential of various biosorbents from water. *Environment International*, **2019**, 123, 567-579	12.9	89
158	Biogeochemical Factors Governing Cobalt, Nickel, Selenium, and Vanadium Dynamics in Periodically Flooded Egyptian North Nile Delta Rice Soils. *Soil Science Society of America Journal*, **2014**, 78, 1065-1078	2.5	88
157	Biochar-induced metal immobilization and soil biogeochemical process: An integrated mechanistic approach. *Science of the Total Environment*, **2020**, 698, 134112	10.2	87
156	Lysimeter trials to assess the impact of different flood□ry-cycles on the dynamics of pore water concentrations of As, Cr, Mo and V in a contaminated floodplain soil. *Geoderma*, **2014**, 228-229, 5-13	6.7	86
155	Temporal dynamics of pore water concentrations of Cd, Co, Cu, Ni, and Zn and their controlling factors in a contaminated floodplain soil assessed by undisturbed groundwater lysimeters. *Environmental Pollution*, **2014**, 191, 223-31	9.3	82
154	Arsenic, chromium, molybdenum, and selenium: Geochemical fractions and potential mobilization in riverine soil profiles originating from Germany and Egypt. *Chemosphere*, **2017**, 180, 553-563	8.4	78
153	Heavy metals removal from aqueous solutions and wastewaters by using various byproducts. *Journal of Environmental Management*, **2013**, 128, 514-21	7.9	75
152	Exploiting biogeochemical and spectroscopic techniques to assess the geochemical distribution and release dynamics of chromium and lead in a contaminated floodplain soil. *Chemosphere*, **2016**, 150, 390-397	8.4	73
151	Removal of Heavy Metals from Aqueous Solution by Zeolite in Competitive Sorption System. *International Journal of Environmental Science and Development*,362-367	0.4	73
150	Various soil amendments and environmental wastes affect the (im)mobilization and phytoavailability of potentially toxic elements in a sewage effluent irrigated sandy soil. *Ecotoxicology and Environmental Safety*, **2017**, 142, 375-387	7	71
149	Arsenic removal by natural and chemically modified water melon rind in aqueous solutions and groundwater. *Science of the Total Environment*, **2018**, 645, 1444-1455	10.2	71

148	Removing tetracycline and Hg(II) with ball-milled magnetic nanobiochar and its potential on polluted irrigation water reclamation. *Journal of Hazardous Materials*, **2020**, 384, 121095	12.8	66
147	Phytoextraction of potentially toxic elements by Indian mustard, rapeseed, and sunflower from a contaminated riparian soil. *Environmental Geochemistry and Health*, **2015**, 37, 953-67	4.7	63
146	Redox-induced mobilization of Ag, Sb, Sn, and Tl in the dissolved, colloidal and solid phase of a biochar-treated and un-treated mining soil. *Environment International*, **2020**, 140, 105754	12.9	60
145	Conversion of biological solid waste to graphene-containing biochar for water remediation: A critical review. *Chemical Engineering Journal*, **2020**, 390, 124611	14.7	59
144	Iron-modified biochar and water management regime-induced changes in plant growth, enzyme activities, and phytoavailability of arsenic, cadmium and lead in a paddy soil. *Journal of Hazardous Materials*, **2021**, 407, 124344	12.8	59
143	Impact of various amendments on immobilization and phytoavailability of nickel and zinc in a contaminated floodplain soil. *International Journal of Environmental Science and Technology*, **2015**, 12, 2765-2776	3.3	58
142	Multifunctional applications of biochar beyond carbon storage. *International Materials Reviews*, **2022**, 1-51	16.1	58
141	Redox chemistry of vanadium in soils and sediments: Interactions with colloidal materials, mobilization, speciation, and relevant environmental implications- A review. *Advances in Colloid and Interface Science*, **2019**, 265, 1-13	14.3	58
140	Release dynamics of As, Co, and Mo in a biochar treated soil under pre-definite redox conditions. *Science of the Total Environment*, **2019**, 657, 686-695	10.2	56
139	Bioavailability and health risk assessment of potentially toxic elements in Thriasio Plain, near Athens, Greece. *Environmental Geochemistry and Health*, **2017**, 39, 319-330	4.7	55
138	Redox chemistry of nickel in soils and sediments: A review. *Chemosphere*, **2017**, 179, 265-278	8.4	54
137	Fe/Mn- and P-modified drinking water treatment residuals reduced Cu and Pb phytoavailability and uptake in a mining soil. *Journal of Hazardous Materials*, **2021**, 403, 123628	12.8	53
136	Freundlich sorption parameters for cadmium, copper, nickel, lead, and zinc for different soils: Influence of kinetics. *Geoderma*, **2018**, 324, 80-88	6.7	52
135	Sorption mechanisms of lead on silicon-rich biochar in aqueous solution: Spectroscopic investigation. *Science of the Total Environment*, **2019**, 672, 572-582	10.2	50
134	Apricot shell- and apple tree-derived biochar affect the fractionation and bioavailability of Zn and Cd as well as the microbial activity in smelter contaminated soil. *Environmental Pollution*, **2020**, 264, 114773	9.3	50
133	Global soil pollution by toxic elements: Current status and future perspectives on the risk assessment and remediation strategies - A review. *Journal of Hazardous Materials*, **2021**, 417, 126039	12.8	50
132	Redox-induced mobilization of copper, selenium, and zinc in deltaic soils originating from Mississippi (U.S.A.) and Nile (Egypt) River Deltas: A better understanding of biogeochemical processes for safe environmental management. *Journal of Environmental Management*, **2017**, 186, 131-140	7.9	49
131	Effect of biochars on the bioavailability of cadmium and di-(2-ethylhexyl) phthalate to Brassica chinensis L. in contaminated soils. *Science of the Total Environment*, **2019**, 678, 43-52	10.2	47

130	Arsenic speciation and biotransformation pathways in the aquatic ecosystem: The significance of algae. *Journal of Hazardous Materials*, **2021**, 403, 124027	12.8	46
129	Arsenic contamination in abandoned and active gold mine spoils in Ghana: Geochemical fractionation, speciation, and assessment of the potential human health risk. *Environmental Pollution*, **2020**, 261, 114116	9.3	44
128	Potentially toxic elements in solid waste streams: Fate and management approaches. *Environmental Pollution*, **2019**, 253, 680-707	9.3	44
127	Animal carcass- and wood-derived biochars improved nutrient bioavailability, enzyme activity, and plant growth in metal-phthalic acid ester co-contaminated soils: A trial for reclamation and improvement of degraded soils. *Journal of Environmental Management*, **2020**, 261, 110246	7.9	43
126	Miscellaneous additives can enhance plant uptake and affect geochemical fractions of copper in a heavily polluted riparian grassland soil. *Ecotoxicology and Environmental Safety*, **2015**, 119, 58-65	7	43
125	Phytoremediation potential of twelve wild plant species for toxic elements in a contaminated soil. *Environment International*, **2021**, 146, 106233	12.9	43
124	Geochemical distribution of Co, Cu, Ni, and Zn in soil profiles of Fluvisols, Luvisols, Gleysols, and Calcisols originating from Germany and Egypt. *Geoderma*, **2017**, 307, 122-138	6.7	41
123	Potentially toxic elements in saltmarsh sediments and common reed (Phragmites australis) of Burullus coastal lagoon at North Nile Delta, Egypt: A survey and risk assessment. *Science of the Total Environment*, **2019**, 649, 1237-1249	10.2	39
122	Soil contamination by potentially toxic elements and the associated human health risk in geo- and anthropogenic contaminated soils: A case study from the temperate region (Germany) and the arid region (Egypt). *Environmental Pollution*, **2020**, 262, 114312	9.3	38
121	Coconut-fiber biochar reduced the bioavailability of lead but increased its translocation rate in rice plants: Elucidation of immobilization mechanisms and significance of iron plaque barrier on roots using spectroscopic techniques. *Journal of Hazardous Materials*, **2020**, 389, 122117	12.8	38
120	Vanadium in thirteen different soil profiles originating from Germany and Egypt: Geochemical fractionation and potential mobilization. *Applied Geochemistry*, **2018**, 88, 288-301	3.5	38
119	Mitigation of mercury accumulation in rice using rice hull-derived biochar as soil amendment: A field investigation. *Journal of Hazardous Materials*, **2020**, 388, 121747	12.8	36
118	Influence of biochar and soil properties on soil and plant tissue concentrations of Cd and Pb: A meta-analysis. *Science of the Total Environment*, **2021**, 755, 142582	10.2	36
117	Use of biochar to reduce mercury accumulation in Oryza sativa L: A trial for sustainable management of historically polluted farmlands. *Environment International*, **2021**, 153, 106527	12.9	36
116	Distribution Coefficient of Copper in Different Soils from Egypt and Greece. *Communications in Soil Science and Plant Analysis*, **2009**, 40, 214-226	1.5	35
115	Pristine and iron-engineered animal- and plant-derived biochars enhanced bacterial abundance and immobilized arsenic and lead in a contaminated soil. *Science of the Total Environment*, **2021**, 763, 144218	10.2	35
114	Methylmercury production in a paddy soil and its uptake by rice plants as affected by different geochemical mercury pools. *Environment International*, **2019**, 129, 461-469	12.9	33
113	Rice straw- and rapeseed residue-derived biochars affect the geochemical fractions and phytoavailability of Cu and Pb to maize in a contaminated soil under different moisture content. *Journal of Environmental Management*, **2019**, 237, 5-14	7.9	33

112	Ammonium nitrogen recovery from digestate by hydrothermal pretreatment followed by activated hydrochar sorption. *Chemical Engineering Journal*, **2020**, 379, 122254	14.7	33
111	Modulation of hexavalent chromium toxicity on Origanum vulgare in an acidic soil amended with peat, lime, and zeolite. *Chemosphere*, **2018**, 195, 291-300	8.4	32
110	Influence of Fly Ash and Sewage Sludge Application on Cadmium and Lead Sorption by an Acidic Alfisol. *Pedosphere*, **2010**, 20, 436-445	5	31
109	Inorganic phosphorus forms in some entisols and aridisols of Egypt. *Geoderma*, **2007**, 142, 217-225	6.7	29
108	Hydrogeochemical and health risk evaluation of arsenic in shallow and deep aquifers along the different floodplains of Punjab, Pakistan. *Journal of Hazardous Materials*, **2021**, 402, 124074	12.8	29
107	Insights into upstream processing of microalgae: A review. *Bioresource Technology*, **2021**, 329, 124870	11	28
106	Multi-metal resistance and plant growth promotion potential of a wastewater bacterium Pseudomonas aeruginosa and its synergistic benefits. *Environmental Geochemistry and Health*, **2017** , 39, 1583-1593	4.7	27
105	Influence of Fly Ash Application on Copper and Zinc Sorption by Acidic Soil amended with Sewage Sludge. *Communications in Soil Science and Plant Analysis*, **2009**, 40, 273-284	1.5	27
104	A critical review on remediation of bisphenol S (BPS) contaminated water: Efficacy and mechanisms. *Critical Reviews in Environmental Science and Technology*, **2020**, 50, 476-522	11.1	27
103	Immobilization of soil copper using organic and inorganic amendments. *Journal of Plant Nutrition and Soil Science*, **2015**, 178, 112-117	2.3	26
102	Effect Of Common Ions On Phosphorus Sorption And Lability In Greek Alfisols With Different pH. *Soil Science*, **2009**, 174, 21-26	0.9	26
101	Biosolids application affects the competitive sorption and lability of cadmium, copper, nickel, lead, and zinc in fluvial and calcareous soils. *Environmental Geochemistry and Health*, **2017**, 39, 1365-1379	4.7	25
100	Stabilization of Sewage Sludge by Using Various By-products: Effects on Soil Properties, Biomass Production, and Bioavailability of Copper and Zinc. *Water, Air, and Soil Pollution*, **2014**, 225, 1	2.6	24
99	Sugar beet factory lime affects the mobilization of Cd, Co, Cr, Cu, Mo, Ni, Pb, and Zn under dynamic redox conditions in a contaminated floodplain soil. *Journal of Environmental Management*, **2017**, 186, 253-260	7.9	24
98	Nanoactivated Carbon Reduces Mercury Mobility and Uptake by : Mechanistic Investigation Using Spectroscopic and Microscopic Techniques. *Environmental Science & Technology*, **2020**, 54, 2698-2706	10.3	23
97	Green remediation of toxic metals contaminated mining soil using bacterial consortium and Brassica juncea. *Environmental Pollution*, **2021**, 277, 116789	9.3	23
96	Sulfur-modified organoclay promotes plant uptake and affects geochemical fractionation of mercury in a polluted floodplain soil. *Journal of Hazardous Materials*, **2019**, 371, 687-693	12.8	22
95	Thiosulphate-induced phytoextraction of mercury in Brassica juncea: Spectroscopic investigations to define a mechanism for Hg uptake. *Environmental Pollution*, **2018**, 242, 986-993	9.3	22

94	Sustainable applications of rice feedstock in agro-environmental and construction sectors: A global perspective. *Renewable and Sustainable Energy Reviews*, **2022**, 153, 111791	16.2	22
93	Assessing the mobilization of As, Cr, Mo, and Se in Egyptian lacustrine and calcareous soils using sequential extraction and biogeochemical microcosm techniques. *Journal of Geochemical Exploration*, **2018**, 191, 28-42	3.8	22
92	Assessing the potential ecological risk of Co, Cr, Cu, Fe and Zn in the sediments of Hooghly-Matla estuarine system, India. *Environmental Geochemistry and Health*, **2019**, 41, 53-70	4.7	21
91	Phosphorus Sorption and Availability to Canola Grown in an Alfisol Amended with Various Soil Amendments. *Communications in Soil Science and Plant Analysis*, **2013**, 44, 89-103	1.5	21
90	Fractionation and mobilization of toxic elements in floodplain soils from Egypt, Germany, and Greece: A comparison study. *Eurasian Soil Science*, **2015**, 48, 1317-1328	1.5	21
89	Influence of fly ash and sewage sludge application on wheat biomass production, nutrients availability, and soil properties. *International Journal of Coal Science and Technology*, **2014**, 1, 221-226	4.5	21
88	Bone-derived biochar improved soil quality and reduced Cd and Zn phytoavailability in a multi-metal contaminated mining soil. *Environmental Pollution*, **2021**, 277, 116800	9.3	21
87	Almond and walnut shell-derived biochars affect sorption-desorption, fractionation, and release of phosphorus in two different soils. *Chemosphere*, **2020**, 241, 124888	8.4	21
86	Speciation, transportation, and pathways of cadmium in soil-rice systems: A review on the environmental implications and remediation approaches for food safety. *Environment International*, **2021**, 156, 106749	12.9	21
85	Effects of microorganism-mediated inoculants on humification processes and phosphorus dynamics during the aerobic composting of swine manure. *Journal of Hazardous Materials*, **2021**, 416, 125738	12.8	20
84	Immobilization of cadmium and lead using phosphorus-rich animal-derived and iron-modified plant-derived biochars under dynamic redox conditions in a paddy soil. *Environment International*, **2021**, 156, 106628	12.9	20
83	Floating duckweed mitigated ammonia volatilization and increased grain yield and nitrogen use efficiency of rice in biochar amended paddy soils. *Chemosphere*, **2019**, 237, 124532	8.4	19
82	Compost and sulfur affect the mobilization and phyto-availability of Cd and Ni to sorghum and barnyard grass in a spiked fluvial soil. *Environmental Geochemistry and Health*, **2017**, 39, 1305-1324	4.7	18
81	Zinc sorption by different soils as affected by selective removal of carbonates and hydrous oxides. *Applied Geochemistry*, **2018**, 88, 49-58	3.5	18
80	Distribution coefficients of cadmium and zinc in different soils in mono-metal and competitive sorption systems. *Journal of Plant Nutrition and Soil Science*, **2015**, 178, 671-681	2.3	18
79	Monitoring of organophosphorus pesticides and remediation technologies of the frequently detected compound (chlorpyrifos) in drinking water. *Polish Journal of Chemical Technology*, **2013**, 15, 25-34	1	18
78	Exploring potential applications of a novel extracellular polymeric substance synthesizing bacterium (Bacillus licheniformis) isolated from gut contents of earthworm (Metaphire posthuma) in environmental remediation. *Biodegradation*, **2018**, 29, 323-337	4.1	18
77	Geo- and nano-materials affect the mono-metal and competitive sorption of Cd, Cu, Ni, and Zn in a sewage sludge-treated alkaline soil. *Journal of Hazardous Materials*, **2019**, 379, 120567	12.8	17

76	Mono-and co-applications of Ca-bentonite with zeolite, Ca-hydroxide, and tobacco biochar affect phytoavailability and uptake of copper and lead in a gold mine-polluted soil. *Journal of Hazardous Materials*, **2019**, 374, 401-411	12.8	17
75	Enhancing phytoextraction of potentially toxic elements in a polluted floodplain soil using sulfur-impregnated organoclay. *Environmental Pollution*, **2019**, 248, 1059-1066	9.3	17
74	Improving the humification and phosphorus flow during swine manure composting: A trial for enhancing the beneficial applications of hazardous biowastes. *Journal of Hazardous Materials*, **2021**, 425, 127906	12.8	17
73	Distribution of Total and Ammonium Bicarbonate-DTPA-Extractable Soil Vanadium From Greece and Egypt and Their Correlation To Soil Properties. *Soil Science*, **2010**, 175, 535-543	0.9	16
72	Antimony contamination and its risk management in complex environmental settings: A review. *Environment International*, **2021**, 158, 106908	12.9	16
71	Streptomyces pactum addition to contaminated mining soils improved soil quality and enhanced metals phytoextraction by wheat in a green remediation trial. *Chemosphere*, **2021**, 273, 129692	8.4	16
70	Effect of biochar aging and co-existence of diethyl phthalate on the mono-sorption of cadmium and zinc to biochar-treated soils. *Journal of Hazardous Materials*, **2021**, 408, 124850	12.8	16
69	Elucidating the redox-driven dynamic interactions between arsenic and iron-impregnated biochar in a paddy soil using geochemical and spectroscopic techniques. *Journal of Hazardous Materials*, **2022**, 422, 126808	12.8	16
68	Biogeochemical cycling, speciation and transformation pathways of arsenic in aquatic environments with the emphasis on algae. *Comprehensive Analytical Chemistry*, **2019**, 85, 15-51	1.9	14
67	Biochar Surface Functionality Plays a Vital Role in (Im)Mobilization and Phytoavailability of Soil Vanadium. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 6864-6874	8.3	14
66	Monitoring and remediation of organochlorine residues in water. *Water Environment Research*, **2014**, 86, 584-93	2.8	13
65	Release of toxic elements in fishpond sediments under dynamic redox conditions: Assessing the potential environmental risk for a safe management of fisheries systems and degraded waterlogged sediments. *Journal of Environmental Management*, **2020**, 255, 109778	7.9	13
64	Utilization of Biosolids in Production of Bioenergy Crops I: Impact of Application Rate on Canola Biomass, Soil Properties, and Nutrient Availability. *Communications in Soil Science and Plant Analysis* , **2013**, 44, 243-258	1.5	12
63	How much nitrogen does Africa need to feed itself by 2050?. *Journal of Environmental Management*, **2020**, 268, 110488	7.9	11
62	Impact of biosolid application rates on competitive sorption and distribution coefficients of Cd, Cu, Ni, Pb, and Zn in an Alfisol and an Entisol. *Chemical Engineering Research and Design*, **2018**, 115, 38-48	5.5	11
61	Metal Ion Removal from Wastewaters by Sorption on Activated Carbon, Cement Kiln Dust, and Sawdust. *Water Environment Research*, **2015**, 87, 506-15	2.8	11
60	Human health risk via soil ingestion of potentially toxic elements and remediation potential of native plants near an abandoned mine spoil in Ghana. *Science of the Total Environment*, **2021**, 798, 149272	10.2	11
59	Monitoring and remediation technologies of organochlorine pesticides in drainage water. *Polish Journal of Chemical Technology*, **2015**, 17, 115-122	1	10

58	Speciation and sorption of phosphorus in agricultural soil profiles of redoximorphic character. *Environmental Geochemistry and Health*, **2020**, 42, 3231-3246	4.7	10
57	Sorption of diethyl phthalate and cadmium by pig carcass and green waste-derived biochars under single and binary systems. *Environmental Research*, **2021**, 193, 110594	7.9	10
56	Wheat and maize-derived water-washed and unwashed biochar improved the nutrients phytoavailability and the grain and straw yield of rice and wheat: A field trial for sustainable management of paddy soils. *Journal of Environmental Management*, **2021**, 297, 113250	7.9	10
55	Advancements of nanotechnologies in crop promotion and soil fertility: Benefits, life cycle assessment, and legislation policies. *Renewable and Sustainable Energy Reviews*, **2021**, 152, 111686	16.2	10
54	Sediment quality, elemental bioaccumulation and antimicrobial properties of mangroves of Indian Sundarban. *Environmental Geochemistry and Health*, **2019**, 41, 275-296	4.7	9
53	Biochar as an (Im)mobilizing Agent for the Potentially Toxic Elements in Contaminated Soils **2019**, 255-274		9
52	Pig carcass-derived biochar caused contradictory effects on arsenic mobilization in a contaminated paddy soil under fluctuating controlled redox conditions. *Journal of Hazardous Materials*, **2022**, 421, 126647	12.8	9
51	Herbal plants- and rice straw-derived biochars reduced metal mobilization in fishpond sediments and improved their potential as fertilizers.. *Science of the Total Environment*, **2022**, 154043	10.2	9
50	Enhanced sorption of trivalent antimony by chitosan-loaded biochar in aqueous solutions: Characterization, performance and mechanisms. *Journal of Hazardous Materials*, **2021**, 425, 127971	12.8	8
49	ON THE PRESENCE OF ORGANOPHOSPHORUS PESTICIDES IN DRAINAGE WATER AND ITS REMEDIATION TECHNOLOGIES. *Environmental Engineering and Management Journal*, **2016**, 15, 1777-1787	0.6	8
48	Mobilization, Methylation, and Demethylation of Mercury in a Paddy Soil Under Systematic Redox Changes. *Environmental Science & Technology*, **2021**, 55, 10133-10141	10.3	8
47	Soil acidification enhances the mobilization of phosphorus under anoxic conditions in an agricultural soil: Investigating the potential for loss of phosphorus to water and the associated environmental risk. *Science of the Total Environment*, **2021**, 793, 148531	10.2	8
46	Effects of sheep bone biochar on soil quality, maize growth, and fractionation and phytoavailability of Cd and Zn in a mining-contaminated soil. *Chemosphere*, **2021**, 282, 131016	8.4	8
45	Review on the interactions of arsenic, iron (oxy)(hydr)oxides, and dissolved organic matter in soils, sediments, and groundwater in a ternary system. *Chemosphere*, **2022**, 286, 131790	8.4	8
44	Classification, Characterization, and Management of Some Agricultural Soils in the North of Egypt **2013**, 417-448		7
43	Removal of potentially toxic elements from contaminated soil and water using bone char compared to plant- and bone-derived biochars: A review.. *Journal of Hazardous Materials*, **2021**, 427, 128131	12.8	7
42	Evaluating vanadium bioavailability to cabbage in rural soils using geochemical and micro-spectroscopic techniques. *Environmental Pollution*, **2020**, 258, 113699	9.3	7
41	Biowastes alone and combined with sulfur affect the phytoavailability of Cu and Zn to barnyard grass and sorghum in a fluvial alkaline soil under dry and wet conditions. *Journal of Environmental Management*, **2019**, 234, 440-447	7.9	7

40	Redox-induced mobilization of phosphorus in groundwater affected arable soil profiles. *Chemosphere*, **2021**, 275, 129928	8.4	7
39	Fractionation of Cd, Cu, Ni, Pb, and Zn in floodplain soils from Egypt, Germany and Greece. *E3S Web of Conferences*, **2013**, 1, 33003	0.5	6
38	Influence of Stabilized Biosolids Application on Availability of Phosphorus, Copper, and Zinc. *Applied and Environmental Soil Science*, **2012**, 2012, 1-11	3.8	6
37	Concentration of Lead in Soils and Some Vegetable Plants in North Nile Delta as affected by Soil Type and Irrigation Water. *Communications in Soil Science and Plant Analysis*, **2009**, 40, 327-344	1.5	6
36	Manganese oxide-modified biochar: production, characterization and applications for the removal of pollutants from aqueous environments - a review.. *Bioresource Technology*, **2021**, 346, 126581	11	6
35	Utilization of Biosolids in Production of Bioenergy Crops II: Impact of Application Rate on Bioavailability and Uptake of Trace Elements by Canola. *Communications in Soil Science and Plant Analysis*, **2013**, 44, 259-274	1.5	5
34	Brevundimonas diminuta isolated from mines polluted soil immobilized cadmium (Cd) and zinc (Zn) through calcium carbonate precipitation: Microscopic and spectroscopic investigations.. *Science of the Total Environment*, **2021**, 813, 152668	10.2	5
33	Pedogeochemical distribution of gallium, indium and thallium, their potential availability and associated risk in highly-weathered soil profiles of Taiwan. *Environmental Research*, **2021**, 197, 110994	7.9	5
32	Impact of raking and bioturbation-mediated ecological manipulation on sediment-water phosphorus diagenesis: a mesocosm study supported with radioactive signature. *Environmental Geochemistry and Health*, **2017**, 39, 1563-1581	4.7	4
31	Nanobiochar-rhizosphere interactions: Implications for the remediation of heavy-metal contaminated soils.. *Environmental Pollution*, **2022**, 299, 118810	9.3	4
30	Remediation of Cd and Cu contaminated water and soil using novel nanomaterials derived from sugar beet processing- and clay brick factory-solid wastes.. *Journal of Hazardous Materials*, **2022**, 428, 128205	12.8	4
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