

Mechanisms of silicon-mediated alleviation of heavy m

Ecotoxicology and Environmental Safety

119, 186-197

DOI: [10.1016/j.ecoenv.2015.05.011](https://doi.org/10.1016/j.ecoenv.2015.05.011)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Microbial Uses in the Remediation of Metal-Impacted Soils. , 0, , 5.2.3-1-5.2.3-10.		0
2	Citric acid assisted phytoremediation of copper by Brassica napus L.. Ecotoxicology and Environmental Safety, 2015, 120, 310-317.	2.9	191
3	Mannitol alleviates chromium toxicity in wheat plants in relation to growth, yield, stimulation of anti-oxidative enzymes, oxidative stress and Cr uptake in sand and soil media. Ecotoxicology and Environmental Safety, 2015, 122, 1-8.	2.9	92
4	Effect of inorganic amendments for in situ stabilization of cadmium in contaminated soils and its phyto-availability to wheat and rice under rotation. Environmental Science and Pollution Research, 2015, 22, 16897-16906.	2.7	212
5	Mechanisms of silicon-mediated alleviation of drought and salt stress in plants: a review. Environmental Science and Pollution Research, 2015, 22, 15416-15431.	2.7	322
6	The possibilities of water purification using phytofiltration methods: a review of recent progress. Biotechnologia, 2016, 4, 315-322.	0.3	7
7	Managing Water and Soils to Achieve Adaptation and Reduce Methane Emissions and Arsenic Contamination in Asian Rice Production. Water (Switzerland), 2016, 8, 141.	1.2	15
8	Silicon Nanoparticles More Efficiently Alleviate Arsenate Toxicity than Silicon in Maize Cultiver and Hybrid Differing in Arsenate Tolerance. Frontiers in Environmental Science, 2016, 4, .	1.5	253
9	Silicon and the Plant Extracellular Matrix. Frontiers in Plant Science, 2016, 7, 463.	1.7	200
10	Microbially Assisted Phytoremediation of Heavy Metalâ€“Contaminated Soils. , 2016, , 483-498.		12
11	Heavy metal removal by GLDA washing: Optimization, redistribution, recycling, and changes in soil fertility. Science of the Total Environment, 2016, 569-570, 557-568.	3.9	139
12	Heavy Metal and Their Regulation in Plant System: An Overview. , 2016, , 19-38.		17
13	Silicon improves photosynthesis and strengthens enzyme activities in the C 3 succulent xerophyte Zygophyllum xanthoxylum under drought stress. Journal of Plant Physiology, 2016, 199, 76-86.	1.6	40
14	An integrated approach to safer plant production on metal contaminated soils using species selection and chemical immobilization. Ecotoxicology and Environmental Safety, 2016, 131, 89-95.	2.9	25
15	Phytoremediation potential of weed plantsâ€™ oxidative biomarker and antioxidant responses. Chemistry and Ecology, 2016, 32, 684-706.	0.6	23
16	The availabilities of arsenic and cadmium in rice paddy fields from a mining area: The role of soil extractable and plant silicon. Environmental Pollution, 2016, 215, 258-265.	3.7	138
17	Cadmium minimization in wheat: A critical review. Ecotoxicology and Environmental Safety, 2016, 130, 43-53.	2.9	436
18	Biochar enhances the cadmium tolerance in spinach (Spinacia oleracea) through modification of Cd uptake and physiological and biochemical attributes. Environmental Science and Pollution Research, 2016, 23, 21385-21394.	2.7	192

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19	Contrasting effects of biochar, compost and farm manure on alleviation of nickel toxicity in maize (<i>Zea mays</i> L.) in relation to plant growth, photosynthesis and metal uptake. <i>Ecotoxicology and Environmental Safety</i> , 2016, 133, 218-225.	2.9	178
20	Effects of silicon on morphology, ultrastructure and exudates of rice root under heavy metal stress. <i>Acta Physiologiae Plantarum</i> , 2016, 38, 1.	1.0	58
21	Consistent alleviation of abiotic stress with silicon addition: a meta-analysis. <i>Functional Ecology</i> , 2016, 30, 1340-1357.	1.7	200
22	Phytomanagement of heavy metals in contaminated soils using sunflower: A review. <i>Critical Reviews in Environmental Science and Technology</i> , 2016, 46, 1498-1528.	6.6	105
23	Physiological and biochemical mechanisms of silicon-induced copper stress tolerance in cotton (<i>Gossypium hirsutum</i> L.). <i>Acta Physiologiae Plantarum</i> , 2016, 38, 1.	1.0	50
24	Silicon-enhanced oxalate exudation contributes to alleviation of cadmium toxicity in wheat. <i>Environmental and Experimental Botany</i> , 2016, 131, 10-18.	2.0	62
25	Rod-like hydroxyapatite and Nafion nanocomposite as an electrochemical matrix for simultaneous and sensitive detection of Hg ²⁺ , Cu ²⁺ , Pb ²⁺ and Cd ²⁺ . <i>Journal of Electroanalytical Chemistry</i> , 2016, 775, 212-218.	1.9	66
26	Effect of different amendments on rice (<i>Oryza sativa</i> L.) growth, yield, nutrient uptake and grain quality in Ni-contaminated soil. <i>Environmental Science and Pollution Research</i> , 2016, 23, 18585-18595.	2.7	51
27	Heavy Metal Stress and Molecular Approaches in Plants. , 2016, , 531-543.		5
28	Cadmium stress in rice: toxic effects, tolerance mechanisms, and management: a critical review. <i>Environmental Science and Pollution Research</i> , 2016, 23, 17859-17879.	2.7	529
29	iTRAQ-based proteomic analysis reveals the mechanisms of silicon-mediated cadmium tolerance in rice (<i>Oryza sativa</i>) cells. <i>Plant Physiology and Biochemistry</i> , 2016, 104, 71-80.	2.8	37
30	Phytoremediation of heavy metals by <i>Alternanthera bettzickiana</i> : Growth and physiological response. <i>Ecotoxicology and Environmental Safety</i> , 2016, 126, 138-146.	2.9	209
31	Reactions to cadmium stress in a cadmium-tolerant variety of cabbage (<i>Brassica oleracea</i> L.): is cadmium tolerance necessarily desirable in food crops?. <i>Environmental Science and Pollution Research</i> , 2016, 23, 5296-5306.	2.7	65
32	The role of silicon in metabolic acclimation of rice plants challenged with arsenic. <i>Environmental and Experimental Botany</i> , 2016, 123, 22-36.	2.0	73
33	Mechanisms of biochar-mediated alleviation of toxicity of trace elements in plants: a critical review. <i>Environmental Science and Pollution Research</i> , 2016, 23, 2230-2248.	2.7	366
34	Silicon alleviates Cd stress of wheat seedlings (<i>Triticum turgidum</i> L. cv. Claudio) grown in hydroponics. <i>Environmental Science and Pollution Research</i> , 2016, 23, 1414-1427.	2.7	224
35	Phosphorus amendment decreased cadmium (Cd) uptake and ameliorates chlorophyll contents, gas exchange attributes, antioxidants, and mineral nutrients in wheat (<i>Triticum aestivum</i> L.) under Cd stress. <i>Archives of Agronomy and Soil Science</i> , 2016, 62, 533-546.	1.3	135
36	Silicon alleviates nickel toxicity in cotton seedlings through enhancing growth, photosynthesis, and suppressing Ni uptake and oxidative stress. <i>Archives of Agronomy and Soil Science</i> , 2016, 62, 633-647.	1.3	95

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37	Effect of metal and metal oxide nanoparticles on growth and physiology of globally important food crops: A critical review. <i>Journal of Hazardous Materials</i> , 2017, 322, 2-16.	6.5	408
38	Use of Maize (<i>Zea mays</i> L.) for phytomanagement of Cd-contaminated soils: a critical review. <i>Environmental Geochemistry and Health</i> , 2017, 39, 259-277.	1.8	116
39	Residual effects of monoammonium phosphate, gypsum and elemental sulfur on cadmium phytoavailability and translocation from soil to wheat in an effluent irrigated field. <i>Chemosphere</i> , 2017, 174, 515-523.	4.2	128
40	<i>Trichoderma asperellum</i> ameliorates phytotoxic effects of copper in onion (<i>Allium cepa</i> L.). <i>Environmental and Experimental Botany</i> , 2017, 136, 85-93.	2.0	40
41	Novel nano-submicron mineral-based soil conditioner for sustainable agricultural development. <i>Journal of Cleaner Production</i> , 2017, 149, 896-903.	4.6	32
42	Effect of biochar on cadmium bioavailability and uptake in wheat (<i>Triticum aestivum</i> L.) grown in a soil with aged contamination. <i>Ecotoxicology and Environmental Safety</i> , 2017, 140, 37-47.	2.9	360
44	Liming an acid soil treated with diverse silicon sources: Effects on silicon uptake by sugarcane (<i>Saccharum</i> spp. hybrids). <i>Journal of Plant Nutrition</i> , 2017, 40, 1417-1436.	0.9	20
45	Arsenic uptake, accumulation and toxicity in rice plants: Possible remedies for its detoxification: A review. <i>Environmental Science and Pollution Research</i> , 2017, 24, 9142-9158.	2.7	159
46	Effects of foliar dressing of selenite and silicate alone or combined with different soil ameliorants on the accumulation of As and Cd and antioxidant system in <i>Brassica campestris</i> . <i>Ecotoxicology and Environmental Safety</i> , 2017, 142, 207-215.	2.9	32
47	Silicon's Role in Abiotic and Biotic Plant Stresses. <i>Annual Review of Phytopathology</i> , 2017, 55, 85-107.	3.5	340
48	Effect of limestone, lignite and biochar applied alone and combined on cadmium uptake in wheat and rice under rotation in an effluent irrigated field. <i>Environmental Pollution</i> , 2017, 227, 560-568.	3.7	194
49	A critical review on effects, tolerance mechanisms and management of cadmium in vegetables. <i>Chemosphere</i> , 2017, 182, 90-105.	4.2	352
50	Advances in microbe-assisted reclamation of heavy metal contaminated soils over the last decade: A review. <i>Journal of Environmental Management</i> , 2017, 198, 132-143.	3.8	178
51	A comparison of technologies for remediation of heavy metal contaminated soils. <i>Journal of Geochemical Exploration</i> , 2017, 182, 247-268.	1.5	877
52	Enhancing the soil heavy metals removal efficiency by adding HPMA and PBTCA along with plant washing agents. <i>Journal of Hazardous Materials</i> , 2017, 339, 33-42.	6.5	51
53	<i>Pongamia pinnata</i> (L.) Pierre tree seedlings offer a model species for arsenic phytoremediation. <i>Plant Gene</i> , 2017, 11, 238-246.	1.4	37
54	Citric acid enhanced the antioxidant defense system and chromium uptake by <i>Lemna minor</i> L. grown in hydroponics under Cr stress. <i>Environmental Science and Pollution Research</i> , 2017, 24, 17669-17678.	2.7	76
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57	Human health implications, risk assessment and remediation of As-contaminated water: A critical review. <i>Science of the Total Environment</i> , 2017, 601-602, 756-769.	3.9	170
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59	Photosynthesis and growth response of maize (<i>Zea mays</i> L.) hybrids exposed to cadmium stress. <i>Environmental Science and Pollution Research</i> , 2017, 24, 5521-5529.	2.7	60
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62	Biomonitoring of Urban Pollution Using Silicon-Accumulating Species, <i>Phyllostachys aureosulcata</i> "Aureocaulis"™. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2017, 99, 706-712.	1.3	3
63	Contrasting Effects of Organic and Inorganic Amendments on Reducing Lead Toxicity in Wheat. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2017, 99, 642-647.	1.3	24
64	Microwave irradiation and citric acid assisted seed germination and phytoextraction of nickel (Ni) by <i>Brassica napus</i> L.: morpho-physiological and biochemical alterations under Ni stress. <i>Environmental Science and Pollution Research</i> , 2017, 24, 21050-21064.	2.7	30
65	Silicon and <i>Rhizophagus irregularis</i> : potential candidates for ameliorating negative impacts of arsenate and arsenite stress on growth, nutrient acquisition and productivity in <i>Cajanus cajan</i> (L.) Millsp. genotypes. <i>Environmental Science and Pollution Research</i> , 2017, 24, 18520-18535.	2.7	24
66	Citric acid assisted phytoextraction of chromium by sunflower; morpho-physiological and biochemical alterations in plants. <i>Ecotoxicology and Environmental Safety</i> , 2017, 145, 90-102.	2.9	131
67	Effect of silicon amendment on soil-cadmium availability and uptake in rice grown in different moisture regimes. <i>Journal of Plant Nutrition</i> , 2017, 40, 2440-2457.	0.9	18
68	Effects and mechanisms of meta-sodium silicate amendments on lead uptake and accumulation by rice. <i>Environmental Science and Pollution Research</i> , 2017, 24, 21700-21709.	2.7	13
69	Foliar application of aspartic acid lowers cadmium uptake and Cd-induced oxidative stress in rice under Cd stress. <i>Environmental Science and Pollution Research</i> , 2017, 24, 21938-21947.	2.7	65
70	Effect of zinc-lysine on growth, yield and cadmium uptake in wheat (<i>Triticum aestivum</i> L.) and health risk assessment. <i>Chemosphere</i> , 2017, 187, 35-42.	4.2	175
71	Silicon Effect on Nutrient Acquisition of Peanut (<i>Arachis hypogaea</i> L.) Under Aluminum Stress. <i>Communications in Soil Science and Plant Analysis</i> , 2017, 48, 2526-2533.	0.6	4
72	Cadmium impact, accumulation and detection in poplar callus cells. <i>Environmental Science and Pollution Research</i> , 2017, 24, 15340-15346.	2.7	3
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74	Silicon ameliorates chromium toxicity through phytochelatin-mediated vacuolar sequestration in the roots of <i>Oryza sativa</i> (L.). <i>International Journal of Phytoremediation</i> , 2017, 19, 246-253.	1.7	36
75	Silicon and Plants: Current Knowledge and Technological Perspectives. <i>Frontiers in Plant Science</i> , 2017, 8, 411.	1.7	397
76	Silicon-Mediated Alleviation of Aluminum Toxicity by Modulation of Al/Si Uptake and Antioxidant Performance in Ryegrass Plants. <i>Frontiers in Plant Science</i> , 2017, 8, 642.	1.7	82
77	Uptake of Silicon by Sugarcane from Applied Sources May Not Reflect Plant-Available Soil Silicon and Total Silicon Content of Sources. <i>Frontiers in Plant Science</i> , 2017, 8, 760.	1.7	45
78	Abiotic Stress Response to As and As+Si, Composite Reprogramming of Fruit Metabolites in Tomato Cultivars. <i>Frontiers in Plant Science</i> , 2017, 8, 2201.	1.7	10
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80	Target proteins reprogrammed by As and As+Si treatments in <i>Solanum lycopersicum</i> L. fruit. <i>BMC Plant Biology</i> , 2017, 17, 210.	1.6	5
81	Feasibility of four wastes to remove heavy metals from contaminated soils. <i>Journal of Environmental Management</i> , 2018, 212, 258-265.	3.8	37
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90	Nano-silicon alters antioxidant activities of soybean seedlings under salt toxicity. <i>Protoplasma</i> , 2018, 255, 953-962.	1.0	127
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93	Geochemical fractions and phytoavailability of Zinc in a contaminated calcareous soil affected by biotic and abiotic amendments. <i>Environmental Geochemistry and Health</i> , 2018, 40, 1221-1235.	1.8	34
94	Amelioration of cadmium stress in gladiolus (<i>Gladiolus grandiflora</i> L.) by application of potassium and silicon. <i>Journal of Plant Nutrition</i> , 2018, 41, 461-476.	0.9	48
95	Silicon (Si): Review and future prospects on the action mechanisms in alleviating biotic and abiotic stresses in plants. <i>Ecotoxicology and Environmental Safety</i> , 2018, 147, 881-896.	2.9	340
96	Root-induced changes of Zn and Pb dynamics in the rhizosphere of sunflower with different plant growth promoting treatments in a heavily contaminated soil. <i>Ecotoxicology and Environmental Safety</i> , 2018, 147, 206-216.	2.9	69
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98	The beneficial role of potassium in Cd-induced stress alleviation and growth improvement in <i>Gladiolus grandiflora</i> L.. <i>International Journal of Phytoremediation</i> , 2018, 20, 274-283.	1.7	46
99	Silicon affects seed development and leaf macrohair formation in <i>Brachypodium distachyon</i> . <i>Physiologia Plantarum</i> , 2018, 163, 231-246.	2.6	12
100	Combined application of compost and <i>Bacillus</i> sp. CIK-512 ameliorated the lead toxicity in radish by regulating the homeostasis of antioxidants and lead. <i>Ecotoxicology and Environmental Safety</i> , 2018, 148, 805-812.	2.9	50
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102	Biominerals and waxes of <i>Calamagrostis epigejos</i> and <i>Phragmites australis</i> leaves from post-industrial habitats. <i>Protoplasma</i> , 2018, 255, 773-784.	1.0	6
103	Foliar application with nano-silicon reduced cadmium accumulation in grains by inhibiting cadmium translocation in rice plants. <i>Environmental Science and Pollution Research</i> , 2018, 25, 2361-2368.	2.7	120
104	Cadmium tolerance and accumulation characteristics of wetland emergent plants under hydroponic conditions. <i>RSC Advances</i> , 2018, 8, 33383-33390.	1.7	18
105	Silicon acquisition and accumulation in plant and its significance for agriculture. <i>Journal of Integrative Agriculture</i> , 2018, 17, 2138-2150.	1.7	124
106	Beneficial effects of silicon on photosynthesis of tomato seedlings under water stress. <i>Journal of Integrative Agriculture</i> , 2018, 17, 2151-2159.	1.7	93
107	Impacts of silicon on biogeochemical cycles of carbon and nutrients in croplands. <i>Journal of Integrative Agriculture</i> , 2018, 17, 2182-2195.	1.7	27
108	Effect of Nitrogen and Silicon on Rice Submerged at Tillering Stage. <i>Agronomy Journal</i> , 2018, 110, 183-192.	0.9	11
109	Silicon effect on growth, nutrient uptake, and yield of peanut (<i>Arachis hypogaea</i> L.) under aluminum stress. <i>Journal of Plant Nutrition</i> , 2018, 41, 2001-2008.	0.9	11

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111	Silicon-Mediated Enhancement of Heavy Metal Tolerance in Rice at Different Growth Stages. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 2193.	1.2	47
112	Effect of bio-silica on drought tolerance in plants. <i>IOP Conference Series: Earth and Environmental Science</i> , 0, 183, 012014.	0.2	12
113	5-Aminolevulinic Acid-Induced Heavy Metal Stress Tolerance and Underlying Mechanisms in Plants. <i>Journal of Plant Growth Regulation</i> , 2018, 37, 1423-1436.	2.8	22
114	Synthesis of biochar from sugarcane filter-cake and its impacts on physiological performance of lettuce (<i>Lettuce sativa</i>) grown on cadmium contaminated soil. <i>Arabian Journal of Geosciences</i> , 2018, 11, 1.	0.6	1
115	Effects of amendments on heavy metal immobilization and uptake by <i>Rhizoma chuanxiong</i> on copper and cadmium contaminated soil. <i>Royal Society Open Science</i> , 2018, 5, 181138.	1.1	25
116	Experiments, Uptake Mechanisms, and Functioning of Silicon Foliar Fertilization—A Review Focusing on Maize, Rice, and Wheat. <i>Advances in Agronomy</i> , 2018, 152, 1-49.	2.4	40
117	Recent Progress of Nanotoxicology in Plants. , 2018, , 143-174.		4
118	Cadmium-accumulator straw application alleviates cadmium stress of lettuce (<i>Lactuca sativa</i>) by promoting photosynthetic activity and antioxidative enzyme activities. <i>Environmental Science and Pollution Research</i> , 2018, 25, 30671-30679.	2.7	18
119	The Use of Iodine, Selenium, and Silicon in Plant Nutrition for the Increase of Antioxidants in Fruits and Vegetables. , 2018, , .		9
120	Silicon enhancement of estimated plant biomass carbon accumulation under abiotic and biotic stresses. A meta-analysis. <i>Agronomy for Sustainable Development</i> , 2018, 38, 1.	2.2	62
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124	Silicon Mechanisms to Ameliorate Heavy Metal Stress in Plants. <i>BioMed Research International</i> , 2018, 2018, 1-10.	0.9	72
125	Dynamic Modeling of Silicon Bioavailability, Uptake, Transport, and Accumulation: Applicability in Improving the Nutritional Quality of Tomato. <i>Frontiers in Plant Science</i> , 2018, 9, 647.	1.7	19
126	Biochemical and Ultrastructural Changes Induced by Lead and Cadmium to Crofton Weed (<i>Eupatorium</i>) Tj ETQq0 0.0 rgBT /Overlock 10	1.1	11
127	Arsenic—silicon priming of rice (<i>Oryza sativa</i> L.) seeds influence mineral nutrient uptake and biochemical responses through modulation of Lsi-1, Lsi-2, Lsi-6 and nutrient transporter genes. <i>Scientific Reports</i> , 2018, 8, 10301.	1.6	106

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129	Impacts of silicon addition on arsenic fractionation in soils and arsenic speciation in <i>Panax notoginseng</i> planted in soils contaminated with high levels of arsenic. <i>Ecotoxicology and Environmental Safety</i> , 2018, 162, 400-407.	2.9	12
130	Role of Zinc and Lysine on Growth and Chromium Uptake in Rice Plants under Cr Stress. <i>Journal of Plant Growth Regulation</i> , 2018, 37, 1413-1422.	2.8	73
131	Activation of silicon in the electrolytic manganese residue by mechanical grinding-roasting. <i>Journal of Cleaner Production</i> , 2018, 192, 347-353.	4.6	62
132	Interactive effect of 24-epibrassinolide and silicon alleviates cadmium stress via the modulation of antioxidant defense and glyoxalase systems and macronutrient content in <i>Pisum sativum</i> L. seedlings. <i>BMC Plant Biology</i> , 2018, 18, 146.	1.6	160
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134	Rock-type control of Ni, Cr, and Co phytoavailability in ultramafic soils. <i>Plant and Soil</i> , 2018, 423, 339-362.	1.8	34
135	Lead Toxicity in Cereals and Its Management Strategies: a Critical Review. <i>Water, Air, and Soil Pollution</i> , 2018, 229, 1.	1.1	45
136	Alleviation of cadmium (Cd) toxicity and minimizing its uptake in wheat (<i>Triticum aestivum</i>) by using organic carbon sources in Cd-spiked soil. <i>Environmental Pollution</i> , 2018, 241, 557-565.	3.7	106
137	Can nano-SiO ₂ reduce the phytotoxicity of acetaminophen? A physiological, biochemical and molecular approach. <i>Environmental Pollution</i> , 2018, 241, 900-911.	3.7	22
138	Calcium induces phytochelatin accumulation to cope with chromium toxicity in rice (<i>Oryza</i>)	1.0	36
139	Bioaccumulation of potentially toxic elements by submerged plants and biofilms: A critical review. <i>Environment International</i> , 2019, 131, 105015.	4.8	65
140	Understanding Heavy Metal Stress in a Rice Crop: Toxicity, Tolerance Mechanisms, and Amelioration Strategies. <i>Journal of Plant Biology</i> , 2019, 62, 239-253.	0.9	73
141	Cadmium immobilization in the soil and accumulation by spinach (<i>Spinacia oleracea</i>) depend on biochar types under controlled and field conditions. <i>Arabian Journal of Geosciences</i> , 2019, 12, 1.	0.6	8
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