Muhammad Rizwan

List of Publications by Citations

385 papers	15,265 citations	66 h-index	108 g-index
405 ext. papers	20,620 ext. citations	5.3 avg, IF	7.27 L-index

#	Paper	IF	Citations
385	Mechanisms of silicon-mediated alleviation of heavy metal toxicity in plants: A review. *Ecotoxicology and Environmental Safety*, **2015**, 119, 186-97	7	467
384	The effect of excess copper on growth and physiology of important food crops: a review. *Environmental Science and Pollution Research*, **2015**, 22, 8148-62	5.1	396
383	Cadmium stress in rice: toxic effects, tolerance mechanisms, and management: a critical review. *Environmental Science and Pollution Research*, **2016**, 23, 17859-79	5.1	361
382	Zinc and iron oxide nanoparticles improved the plant growth and reduced the oxidative stress and cadmium concentration in wheat. *Chemosphere*, **2019**, 214, 269-277	8.4	296
381	Effect of metal and metal oxide nanoparticles on growth and physiology of globally important food crops: A critical review. *Journal of Hazardous Materials*, **2017**, 322, 2-16	12.8	286
380	Mechanisms of biochar-mediated alleviation of toxicity of trace elements in plants: a critical review. *Environmental Science and Pollution Research*, **2016**, 23, 2230-48	5.1	279
379	Cadmium minimization in wheat: A critical review. *Ecotoxicology and Environmental Safety*, **2016**, 130, 43-53	7	276
378	Effect of biochar on cadmium bioavailability and uptake in wheat (Triticum aestivum L.) grown in a soil with aged contamination. *Ecotoxicology and Environmental Safety*, **2017**, 140, 37-47	7	252
377	pH Sensitive Hydrogels in Drug Delivery: Brief History, Properties, Swelling, and Release Mechanism, Material Selection and Applications. *Polymers*, **2017**, 9,	4.5	246
376	Citric acid assisted phytoremediation of cadmium by Brassica napus L. *Ecotoxicology and Environmental Safety*, **2014**, 106, 164-72	7	237
375	A critical review on effects, tolerance mechanisms and management of cadmium in vegetables. *Chemosphere*, **2017**, 182, 90-105	8.4	232
374	Mechanisms of silicon-mediated alleviation of drought and salt stress in plants: a review. *Environmental Science and Pollution Research*, **2015**, 22, 15416-31	5.1	230
373	Effect of silicon on wheat seedlings (Triticum turgidum L.) grown in hydroponics and exposed to 0 to 30 □M Cu. *Planta*, **2015**, 241, 847-60	4.7	219
372	Biochar soil amendment on alleviation of drought and salt stress in plants: a critical review. *Environmental Science and Pollution Research*, **2017**, 24, 12700-12712	5.1	217
371	Effect of silicon on reducing cadmium toxicity in durum wheat (Triticum turgidum L. cv. Claudio W.) grown in a soil with aged contamination. *Journal of Hazardous Materials*, **2012**, 209-210, 326-34	12.8	211
370	EDTA enhanced plant growth, antioxidant defense system, and phytoextraction of copper by Brassica napus L. *Environmental Science and Pollution Research*, **2015**, 22, 1534-44	5.1	179
369	Cadmium phytoremediation potential of Brassica crop species: A review. *Science of the Total Environment*, **2018**, 631-632, 1175-1191	10.2	177

368	Zinc oxide nanoparticles alter the wheat physiological response and reduce the cadmium uptake by plants. *Environmental Pollution*, **2018**, 242, 1518-1526	9.3	176
367	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, 16897-906	5.1	169
366	Effect of limestone, lignite and biochar applied alone and combined on cadmium uptake in wheat and rice under rotation in an effluent irrigated field. *Environmental Pollution*, **2017**, 227, 560-568	9.3	160
365	Silicon alleviates Cd stress of wheat seedlings (Triticum turgidum L. cv. Claudio) grown in hydroponics. *Environmental Science and Pollution Research*, **2016**, 23, 1414-27	5.1	158
364	Phytoremediation of heavy metals by Alternanthera bettzickiana: Growth and physiological response. *Ecotoxicology and Environmental Safety*, **2016**, 126, 138-146	7	156
363	Biochar application increased the growth and yield and reduced cadmium in drought stressed wheat grown in an aged contaminated soil. *Ecotoxicology and Environmental Safety*, **2018**, 148, 825-833	7	154
362	Contrasting effects of biochar, compost and farm manure on alleviation of nickel toxicity in maize (Zea mays L.) in relation to plant growth, photosynthesis and metal uptake. *Ecotoxicology and Environmental Safety*, **2016**, 133, 218-25	7	149
361	Influence of soil properties and feedstocks on biochar potential for carbon mineralization and improvement of infertile soils. *Geoderma*, **2018**, 332, 100-108	6.7	142
360	Citric acid enhances the phytoextraction of chromium, plant growth, and photosynthesis by alleviating the oxidative damages in Brassica napus L. *Environmental Science and Pollution Research*, **2015**, 22, 11679-89	5.1	141
359	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	5.1	134
358	Advances and future directions of biochar characterization methods and applications. *Critical Reviews in Environmental Science and Technology*, **2017**, 47, 2275-2330	11.1	128
357	Drinking Water Quality Status and Contamination in Pakistan. *BioMed Research International*, **2017**, 2017, 7908183	3	125
356	Alleviation of chromium toxicity by glycinebetaine is related to elevated antioxidant enzymes and suppressed chromium uptake and oxidative stress in wheat (Triticum aestivum L.). *Environmental Science and Pollution Research*, **2015**, 22, 10669-78	5.1	123
355	Citric acid assisted phytoremediation of copper by Brassica napus L. *Ecotoxicology and Environmental Safety*, **2015**, 120, 310-7	7	123
354	Effect of zinc-lysine on growth, yield and cadmium uptake in wheat (Triticum aestivum L.) and health risk assessment. *Chemosphere*, **2017**, 187, 35-42	8.4	119
353	Human health implications, risk assessment and remediation of As-contaminated water: A critical review. *Science of the Total Environment*, **2017**, 601-602, 756-769	10.2	116
352	Alleviation of cadmium accumulation in maize (Zea mays L.) by foliar spray of zinc oxide nanoparticles and biochar to contaminated soil. *Environmental Pollution*, **2019**, 248, 358-367	9.3	115
351	Residual effects of biochar on growth, photosynthesis and cadmium uptake in rice (Oryza sativa L.) under Cd stress with different water conditions. *Journal of Environmental Management*, **2018**, 206, 676-683	7.9	114

350	Seed priming with silicon nanoparticles improved the biomass and yield while reduced the oxidative stress and cadmium concentration in wheat grains. *Environmental Science and Pollution Research*, **2019**, 26, 7579-7588	5.1	112
349	Cadmium stress in cotton seedlings: Physiological, photosynthesis and oxidative damages alleviated by glycinebetaine. *South African Journal of Botany*, **2016**, 104, 61-68	2.9	109
348	Application of Floating Aquatic Plants in Phytoremediation of Heavy Metals Polluted Water: A Review. *Sustainability*, **2020**, 12, 1927	3.6	107
347	Interactive effect of salinity and silver nanoparticles on photosynthetic and biochemical parameters of wheat. *Archives of Agronomy and Soil Science*, **2017**, 63, 1736-1747	2	102
346	Phosphorus amendment decreased cadmium (Cd) uptake and ameliorates chlorophyll contents, gas exchange attributes, antioxidants, and mineral nutrients in wheat (Triticum aestivum L.) under Cd stress. *Archives of Agronomy and Soil Science*, **2016**, 62, 533-546	2	101
345	Silicon occurrence, uptake, transport and mechanisms of heavy metals, minerals and salinity enhanced tolerance in plants with future prospects: A review. *Journal of Environmental Management*, **2016**, 183, 521-529	7.9	100
344	Citric acid assisted phytoextraction of chromium by sunflower; morpho-physiological and biochemical alterations in plants. *Ecotoxicology and Environmental Safety*, **2017**, 145, 90-102	7	99
343	Residual effects of monoammonium phosphate, gypsum and elemental sulfur on cadmium phytoavailability and translocation from soil to wheat in an effluent irrigated field. *Chemosphere*, **2017**, 174, 515-523	8.4	98
342	Silicon nanoparticles enhanced the growth and reduced the cadmium accumulation in grains of wheat (Triticum aestivum L.). *Plant Physiology and Biochemistry*, **2019**, 140, 1-8	5.4	95
341	Combined use of biochar and zinc oxide nanoparticle foliar spray improved the plant growth and decreased the cadmium accumulation in rice (Oryza sativa L.) plant. *Environmental Science and Pollution Research*, **2019**, 26, 11288-11299	5.1	92
340	Fulvic acid mediates chromium (Cr) tolerance in wheat (Triticum aestivum L.) through lowering of Cr uptake and improved antioxidant defense system. *Environmental Science and Pollution Research*, **2015**, 22, 10601-9	5.1	92
339	Effect of biochar on alleviation of cadmium toxicity in wheat (Triticum aestivum L.) grown on Cd-contaminated saline soil. *Environmental Science and Pollution Research*, **2018**, 25, 25668-25680	5.1	89
338	Simultaneous mitigation of cadmium and drought stress in wheat by soil application of iron nanoparticles. *Chemosphere*, **2020**, 238, 124681	8.4	86
337	Use of Maize (Zea mays L.) for phytomanagement of Cd-contaminated soils: a critical review. *Environmental Geochemistry and Health*, **2017**, 39, 259-277	4.7	85
336	Remediation of heavy metal contaminated soils by using Solanum nigrum: A review. *Ecotoxicology and Environmental Safety*, **2017**, 143, 236-248	7	85
335	Influence of phosphorus on copper phytoextraction via modulating cellular organelles in two jute (Corchorus capsularis L.) varieties grown in a copper mining soil of Hubei Province, China. *Chemosphere*, **2020**, 248, 126032	8.4	82
334	Phytomanagement of heavy metals in contaminated soils using sunflower: A review. *Critical Reviews in Environmental Science and Technology*, **2016**, 46, 1498-1528	11.1	82
333	Amelioration of salt induced toxicity in pearl millet by seed priming with silver nanoparticles (AgNPs): The oxidative damage, antioxidant enzymes and ions uptake are major determinants of salt tolerant capacity. *Plant Physiology and Biochemistry*, **2020**, 156, 221-232	5.4	81

332	Heavy metal-induced oxidative stress on seed germination and seedling development: a critical review. *Environmental Geochemistry and Health*, **2019**, 41, 1813-1831	4.7	78
331	Nitric oxide induces rice tolerance to excessive nickel by regulating nickel uptake, reactive oxygen species detoxification and defense-related gene expression. *Chemosphere*, **2018**, 191, 23-35	8.4	75
330	Seed priming by sodium nitroprusside improves salt tolerance in wheat (Triticum aestivum L.) by enhancing physiological and biochemical parameters. *Plant Physiology and Biochemistry*, **2017**, 119, 50-58	5.4	74
329	Experimental and theoretical aspects of biochar-supported nanoscale zero-valent iron activating HO for ciprofloxacin removal from aqueous solution. *Journal of Hazardous Materials*, **2019**, 380, 120848	12.8	73
328	Responses of wheat (Triticum aestivum) plants grown in a Cd contaminated soil to the application of iron oxide nanoparticles. *Ecotoxicology and Environmental Safety*, **2019**, 173, 156-164	7	72
327	Alleviation of cadmium (Cd) toxicity and minimizing its uptake in wheat (Triticum aestivum) by using organic carbon sources in Cd-spiked soil. *Environmental Pollution*, **2018**, 241, 557-565	9.3	72
326	Foliar application of ascorbate enhances the physiological and biochemical attributes of maize (Zea mays L.) cultivars under drought stress. *Archives of Agronomy and Soil Science*, **2015**, 61, 1659-1672	2	72
325	Effect of foliar applications of silicon and titanium dioxide nanoparticles on growth, oxidative stress, and cadmium accumulation by rice (Oryza sativa). *Acta Physiologiae Plantarum*, **2019**, 41, 1	2.6	72
324	Glycinebetaine mediates chromium tolerance in mung bean through lowering of Cr uptake and improved antioxidant system. *Archives of Agronomy and Soil Science*, **2016**, 62, 648-662	2	69
323	Silicon alleviates nickel toxicity in cotton seedlings through enhancing growth, photosynthesis, and suppressing Ni uptake and oxidative stress. *Archives of Agronomy and Soil Science*, **2016**, 62, 633-647	2	68
322	A critical review of mechanisms involved in the adsorption of organic and inorganic contaminants through biochar. *Arabian Journal of Geosciences*, **2018**, 11, 1	1.8	68
321	A critical review on the effects of zinc at toxic levels of cadmium in plants. *Environmental Science and Pollution Research*, **2019**, 26, 6279-6289	5.1	67
320	The accumulation of cadmium in wheat (Triticum aestivum) as influenced by zinc oxide nanoparticles and soil moisture conditions. *Environmental Science and Pollution Research*, **2019**, 26, 19859-19870	5.1	66
319	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	7	65
318	Seed priming with melatonin coping drought stress in rapeseed by regulating reactive oxygen species detoxification: Antioxidant defense system, osmotic adjustment, stomatal traits and chloroplast ultrastructure perseveration. *Industrial Crops and Products*, **2019**, 140, 111597	5.9	65
317	Impact of different amendments on biochemical responses of sesame (Sesamum indicum L.) plants grown in lead-cadmium contaminated soil. *Plant Physiology and Biochemistry*, **2018**, 132, 345-355	5.4	61
316	Agroforestry: a sustainable environmental practice for carbon sequestration under the climate change scenarios-a review. *Environmental Science and Pollution Research*, **2017**, 24, 11177-11191	5.1	60
315	Jute: A Potential Candidate for Phytoremediation of Metals-A Review. *Plants*, **2020**, 9,	4.5	60

314	Iodine biofortification of wheat, rice and maize through fertilizer strategy. *Plant and Soil*, **2017**, 418, 319-335	4.3	59
313	Effect of biochar modified with magnetite nanoparticles and HNO for efficient removal of Cr(VI) from contaminated water: A batch and column scale study. *Environmental Pollution*, **2020**, 261, 114231	9.3	58
312	Phyto-management of chromium contaminated soils through sunflower under exogenously applied 5-aminolevulinic acid. *Ecotoxicology and Environmental Safety*, **2018**, 151, 255-265	7	57
311	A review of biochar-based sorbents for separation of heavy metals from water. *International Journal of Phytoremediation*, **2020**, 22, 111-126	3.9	57
310	Effects of silicon nanoparticles on growth and physiology of wheat in cadmium contaminated soil under different soil moisture levels. *Environmental Science and Pollution Research*, **2020**, 27, 4958-4968	5.1	56
309	Green Synthesis of Zinc Oxide (ZnO) Nanoparticles Using Aqueous Fruit Extracts of : Their Characterizations and Biological and Environmental Applications. *ACS Omega*, **2021**, 6, 9709-9722	3.9	55
308	Citric acid enhanced the antioxidant defense system and chromium uptake by Lemna minor L. grown in hydroponics under Cr stress. *Environmental Science and Pollution Research*, **2017**, 24, 17669-17678	5.1	54
307	Synthesis, characterization and application of novel MnO and CuO impregnated biochar composites to sequester arsenic (As) from water: Modeling, thermodynamics and reusability. *Journal of Hazardous Materials*, **2021**, 401, 123338	12.8	54
306	Split application of silicon in cadmium (Cd) spiked alkaline soil plays a vital role in decreasing Cd accumulation in rice (Oryza sativa L.) grains. *Chemosphere*, **2019**, 226, 454-462	8.4	52
305	Uptake and distribution of minerals and heavy metals in commonly grown leafy vegetable species irrigated with sewage water. *Environmental Monitoring and Assessment*, **2016**, 188, 541	3.1	52
304	Plant growth promoting rhizobacteria alleviates drought stress in potato in response to suppressive oxidative stress and antioxidant enzymes activities. *Scientific Reports*, **2020**, 10, 16975	4.9	52
303	Review of Upflow Anaerobic Sludge Blanket Reactor Technology: Effect of Different Parameters and Developments for Domestic Wastewater Treatment. *Journal of Chemistry*, **2018**, 2018, 1-13	2.3	50
302	Synthesis, characterization and advanced sustainable applications of titanium dioxide nanoparticles: A review. *Ecotoxicology and Environmental Safety*, **2021**, 212, 111978	7	50
301	Foliar exposure of zinc oxide nanoparticles improved the growth of wheat (Triticum aestivum L.) and decreased cadmium concentration in grains under simultaneous Cd and water deficient stress. *Ecotoxicology and Environmental Safety*, **2021**, 208, 111627	7	50
300	Synthesis and characterization of titanium dioxide nanoparticles by chemical and green methods and their antifungal activities against wheat rust. *Chemosphere*, **2020**, 258, 127352	8.4	49
299	Hydrogen sulfide alleviates chromium stress on cauliflower by restricting its uptake and enhancing antioxidative system. *Physiologia Plantarum*, **2020**, 168, 289-300	4.6	48
298	Flax L.): A Potential Candidate for Phytoremediation? Biological and Economical Points of View. *Plants*, **2020**, 9,	4.5	48
297	High sorption efficiency for As(III) and As(V) from aqueous solutions using novel almond shell biochar. *Chemosphere*, **2020**, 243, 125330	8.4	48

296	Comparative effectiveness of different biochars and conventional organic materials on growth, photosynthesis and cadmium accumulation in cereals. *Chemosphere*, **2019**, 227, 72-81	8.4	46
295	Farmyard manure alone and combined with immobilizing amendments reduced cadmium accumulation in wheat and rice grains grown in field irrigated with raw effluents. *Chemosphere*, **2018**, 199, 468-476	8.4	46
294	Effect of foliar-applied iron complexed with lysine on growth and cadmium (Cd) uptake in rice under Cd stress. *Environmental Science and Pollution Research*, **2018**, 25, 20691-20699	5.1	46
293	Assessing the Correlations between Different Traits in Copper-Sensitive and Copper-Resistant Varieties of Jute (L.). *Plants*, **2019**, 8,	4.5	46
292	Hydrogen sulfide enhances rice tolerance to nickel through the prevention of chloroplast damage and the improvement of nitrogen metabolism under excessive nickel. *Plant Physiology and Biochemistry*, **2019**, 138, 100-111	5.4	44
291	Use of Nitric Oxide and Hydrogen Peroxide for Better Yield of Wheat (L.) under Water Deficit Conditions: Growth, Osmoregulation, and Antioxidative Defense Mechanism. *Plants*, **2020**, 9,	4.5	44
290	Air pollution tolerance index of plants around brick kilns in Rawalpindi, Pakistan. *Journal of Environmental Management*, **2017**, 190, 252-258	7.9	43
289	Effect of Corn Residue Biochar on the Hydraulic Properties of Sandy Loam Soil. *Sustainability*, **2017**, 9, 266	3.6	43
288	Synergistic effect of silicon and selenium on the alleviation of cadmium toxicity in rice plants. *Journal of Hazardous Materials*, **2021**, 401, 123393	12.8	43
287	Effect of different amendments on rice (Oryza sativa L.) growth, yield, nutrient uptake and grain quality in Ni-contaminated soil. *Environmental Science and Pollution Research*, **2016**, 23, 18585-95	5.1	42
286	Efficiency of various sewage sludges and their biochars in improving selected soil properties and growth of wheat (Triticum aestivum). *Journal of Environmental Management*, **2018**, 223, 607-613	7.9	42
285	Photosynthesis and growth response of maize (Zea mays L.) hybrids exposed to cadmium stress. *Environmental Science and Pollution Research*, **2017**, 24, 5521-5529	5.1	41
284	Role of Zinc□lysine on Growth and Chromium Uptake in Rice Plants under Cr Stress. *Journal of Plant Growth Regulation*, **2018**, 37, 1413-1422	4.7	41
283	Role of iron-lysine on morpho-physiological traits and combating chromium toxicity in rapeseed (Brassica napus L.) plants irrigated with different levels of tannery wastewater. *Plant Physiology and Biochemistry*, **2020**, 155, 70-84	5.4	41
282	Morpho-physiological and biochemical responses of tolerant and sensitive rapeseed cultivars to drought stress during early seedling growth stage. *Acta Physiologiae Plantarum*, **2019**, 41, 1	2.6	40
281	Effects of co-composting of farm manure and biochar on plant growth and carbon mineralization in an alkaline soil. *Environmental Science and Pollution Research*, **2017**, 24, 26060-26068	5.1	40
280	Human health risk assessment of arsenic in groundwater aquifers of Lahore, Pakistan. *Human and Ecological Risk Assessment (HERA)*, **2017**, 23, 836-850	4.9	39
279	Comparative efficacy of organic and inorganic silicon fertilizers on antioxidant response, Cd/Pb accumulation and health risk assessment in wheat (Triticum aestivum L.). *Environmental Pollution*, **2019**, 255, 113146	9.3	39

278	Combined application of citric acid and 5-aminolevulinic acid improved biomass, photosynthesis and gas exchange attributes of sunflower (L.) grown on chromium contaminated soil. *International Journal of Phytoremediation*, **2019**, 21, 760-767	3.9	39
277	Chromium resistant microbes and melatonin reduced Cr uptake and toxicity, improved physio-biochemical traits and yield of wheat in contaminated soil. *Chemosphere*, **2020**, 250, 126239	8.4	39
276	Promotive role of 5-aminolevulinic acid on chromium-induced morphological, photosynthetic, and oxidative changes in cauliflower (Brassica oleracea botrytis L.). *Environmental Science and Pollution Research*, **2017**, 24, 8814-8824	5.1	38
275	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	8.4	38
274	Application of abscisic acid and 6-benzylaminopurine modulated morpho-physiological and antioxidative defense responses of tomato (Solanum lycopersicum L.) by minimizing cobalt uptake. *Chemosphere*, **2021**, 263, 128169	8.4	38
273	Foliar application of silicon nanoparticles affected the growth, vitamin C, flavonoid, and antioxidant enzyme activities of coriander (Coriandrum sativum L.) plants grown in lead (Pb)-spiked soil. *Environmental Science and Pollution Research*, **2021**, 28, 1417-1425	5.1	38
272	Comparative efficiency of peanut shell and peanut shell biochar for removal of arsenic from water. *Environmental Science and Pollution Research*, **2019**, 26, 18624-18635	5.1	37
271	Glycine Betaine Accumulation, Significance and Interests for Heavy Metal Tolerance in Plants. *Plants*, **2020**, 9,	4.5	37
270	Effects of 24-epibrassinolide on plant growth, antioxidants defense system, and endogenous hormones in two wheat varieties under drought stress. *Physiologia Plantarum*, **2021**, 172, 696-706	4.6	37
269	Phyto-management of Cr-contaminated soils by sunflower hybrids: physiological and biochemical response and metal extractability under Cr stress. *Environmental Science and Pollution Research*, **2017**, 24, 16845-16859	5.1	36
268	Loading of Cefixime to pH sensitive chitosan based hydrogel and investigation of controlled release kinetics. *International Journal of Biological Macromolecules*, **2020**, 155, 1236-1244	7.9	36
267	Cadmium uptake and translocation: selenium and silicon roles in Cd detoxification for the production of low Cd crops: a critical review. *Chemosphere*, **2021**, 273, 129690	8.4	36
266	EDTA-assisted phytoextraction of lead and cadmium by Pelargonium cultivars grown on spiked soil. *International Journal of Phytoremediation*, **2019**, 21, 101-110	3.9	35
265	Physiological and biochemical mechanisms of silicon-induced copper stress tolerance in cotton (Gossypium hirsutum L.). *Acta Physiologiae Plantarum*, **2016**, 38, 1	2.6	35
264	Adsorption-reduction performance of tea waste and rice husk biochars for Cr(VI) elimination from wastewater. *Journal of Saudi Chemical Society*, **2020**, 24, 799-810	4.3	35
263	Residual effects of biochar and phosphorus on growth and nutrient accumulation by maize (Zea mays L.) amended with microbes in texturally different soils. *Chemosphere*, **2020**, 238, 124710	8.4	34
262	Copper Uptake and Accumulation, Ultra-Structural Alteration, and Bast Fibre Yield and Quality of Fibrous Jute (L.) Plants Grown Under Two Different Soils of China. *Plants*, **2020**, 9,	4.5	34
261	Comparative Effects of Biochar, Slag and Ferrous-Mn Ore on Lead and Cadmium Immobilization in Soil. *Bulletin of Environmental Contamination and Toxicology*, **2018**, 100, 286-292	2.7	34

260	Exogenously applied growth regulators protect the cotton crop from heat-induced injury by modulating plant defense mechanism. *Scientific Reports*, **2018**, 8, 17086	4.9	33
259	Ethylenediaminetetraacetic Acid (EDTA) Mitigates the Toxic Effect of Excessive Copper Concentrations on Growth, Gaseous Exchange and Chloroplast Ultrastructure of L. and Improves Copper Accumulation Capabilities. *Plants*, **2020**, 9,	4.5	32
258	Glycinebetaine alleviates the chromium toxicity in Brassica oleracea L. by suppressing oxidative stress and modulating the plant morphology and photosynthetic attributes. *Environmental Science and Pollution Research*, **2020**, 27, 1101-1111	5.1	32
257	Application of co-composted farm manure and biochar increased the wheat growth and decreased cadmium accumulation in plants under different water regimes. *Chemosphere*, **2020**, 246, 125809	8.4	32
256	Role of Microorganisms in the Remediation of Wastewater in Floating Treatment Wetlands: A Review. *Sustainability*, **2020**, 12, 5559	3.6	32
255	Citric Acid Enhances Plant Growth, Photosynthesis, and Phytoextraction of Lead by Alleviating the Oxidative Stress in Castor Beans. *Plants*, **2019**, 8,	4.5	32
254	Silicon mediated improvement in the growth and ion homeostasis by decreasing Na uptake in maize (Zea mays L.) cultivars exposed to salinity stress. *Plant Physiology and Biochemistry*, **2021**, 158, 208-218	5.4	32
253	Isolation and characterization of lead (Pb) resistant microbes and their combined use with silicon nanoparticles improved the growth, photosynthesis and antioxidant capacity of coriander (Coriandrum sativum L.) under Pb stress. *Environmental Pollution*, **2020**, 266, 114982	9.3	31
252	Approaches in Enhancing Thermotolerance in Plants: An Updated Review. *Journal of Plant Growth Regulation*, **2020**, 39, 456-480	4.7	31
251	Foliar application of aspartic acid lowers cadmium uptake and Cd-induced oxidative stress in rice under Cd stress. *Environmental Science and Pollution Research*, **2017**, 24, 21938-21947	5.1	30
250	Engineered ZnO and CuO Nanoparticles Ameliorate Morphological and Biochemical Response in Tissue Culture Regenerants of Candyleaf (). *Molecules*, **2020**, 25,	4.8	29
249	Residual effects of frequently available organic amendments on cadmium bioavailability and accumulation in wheat. *Chemosphere*, **2020**, 244, 125548	8.4	29
248	Recent advancement and development of chitin and chitosan-based nanocomposite for drug delivery: Critical approach to clinical research. *Arabian Journal of Chemistry*, **2020**, 13, 8935-8964	5.9	29
247	Glutamic acid assisted phyto-management of silver-contaminated soils through sunflower; physiological and biochemical response. *Environmental Science and Pollution Research*, **2018**, 25, 25390-25400	5.1	29
246	Management of tannery wastewater for improving growth attributes and reducing chromium uptake in spinach through citric acid application. *Environmental Science and Pollution Research*, **2018**, 25, 10848-10856	5.1	28
245	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	8.4	28
244	Green synthesized silver nanoparticles induced cytogenotoxic and genotoxic changes in Allium cepa L. varies with nanoparticles doses and duration of exposure. *Chemosphere*, **2020**, 243, 125430	8.4	28
243	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

242	Role of mineral nutrition in alleviation of heat stress in cotton plants grown in glasshouse and field conditions. *Scientific Reports*, **2019**, 9, 13022	4.9	27
241	Chemically synthesized silver nanoparticles induced physio-chemical and chloroplast ultrastructural changes in broad bean seedlings. *Chemosphere*, **2019**, 235, 1066-1072	8.4	27
240	Effects of silicon on heavy metal uptake at the soil-plant interphase: A review. *Ecotoxicology and Environmental Safety*, **2021**, 222, 112510	7	27
239	A review on remediation of harmful dyes through visible light-driven WO3 photocatalytic nanomaterials. *International Journal of Environmental Science and Technology*, **2019**, 16, 4975-4988	3.3	26
238	Individual and combined application of EDTA and citric acid assisted phytoextraction of copper using jute (Corchorus capsularis L.) seedlings. *Environmental Technology and Innovation*, **2020**, 19, 100895	7	26
237	Reduces Cadmium Accumulation and Improves Growth and Antioxidant Defense System in Two Wheat (L.) Varieties. *Plants*, **2020**, 9,	4.5	26
236	Physiological and biochemical response of wheat (Triticum aestivum) to TiO nanoparticles in phosphorous amended soil: A full life cycle study. *Journal of Environmental Management*, **2020**, 263, 110365	7.9	26
235	Boron supply alleviates cadmium toxicity in rice (Oryza sativa L.) by enhancing cadmium adsorption on cell wall and triggering antioxidant defense system in roots. *Chemosphere*, **2021**, 266, 128938	8.4	26
234	A Critical Review on the Synthesis of Natural Sodium Alginate Based Composite Materials: An Innovative Biological Polymer for Biomedical Delivery Applications. *Processes*, **2021**, 9, 137	2.9	26
233	Alpha-tocopherol fertigation confers growth physio-biochemical and qualitative yield enhancement in field grown water deficit wheat (Triticum aestivum L.). *Scientific Reports*, **2019**, 9, 12924	4.9	25
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