Charlotte Poschenrieder

List of Publications by Year
in descending order

128 papers	8,188 citations	41258 49 h-index	49773 87 g-index
131 all docs	131 docs citations	131 times ranked	8146 citing authors

#	Article	IF	Citations
1	Fast root growth responses, root exudates, and internal detoxification as clues to the mechanisms of aluminium toxicity and resistance: a review. Environmental and Experimental Botany, 2002, 48, 75-92.	2.0	823
2	Colonization with arbuscular mycorrhizal fungi improves salinity tolerance of tomato (Solanum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	1.8	387
3	A glance into aluminum toxicity and resistance in plants. Science of the Total Environment, 2008, 400, 356-368.	3.9	349
4	Trace element behaviour at the rootâ€“soil interface: Implications in phytoremediation. Environmental and Experimental Botany, 2009, 67, 243-259.	2.0	340
5	Influence of Cadmium on Water Relations, Stomatal Resistance, and Abscisic Acid Content in Expanding Bean Leaves. Plant Physiology, 1989, 90, 1365-1371.	2.3	246
6	Can metals defend plants against biotic stress?. Trends in Plant Science, 2006, 11, 288-295.	4.3	228
7	Do toxic ions induce hormesis in plants?. Plant Science, 2013, 212, 15-25.	1.7	219
8	Root cell patterning: a primary target for aluminium toxicity in maize. Journal of Experimental Botany, 2005, 56, 1213-1220.	2.4	211
9	A Role for Zinc in Plant Defense Against Pathogens and Herbivores. Frontiers in Plant Science, 2019, 10, 1171.	1.7	182
10	Arsenic and heavy metal contamination of soil and vegetation around a copper mine in Northern Peru. Science of the Total Environment, 1997, 203, 83-91.	3.9	171
11	Cell-Type-Specific H⁺-ATPase Activity in Root Tissues Enables K⁺ Retention and Mediates Acclimation of Barley (<i>Hordeum vulgare</i>) to Salinity Stress. Plant Physiology, 2016, 172, 2445-2458.	2.3	158
12	Change in Apoplastic Aluminum during the Initial Growth Response to Aluminum by Roots of a Tolerant Maize Variety1. Plant Physiology, 1999, 119, 435-444.	2.3	145
13	Membrane transporters mediating root signalling and adaptive responses to oxygen deprivation and soil flooding. Plant, Cell and Environment, 2014, 37, 2216-2233.	2.8	130
14	Lessons from crop plants struggling with salinity. Plant Science, 2014, 226, 2-13.	1.7	129
15	Effective Use of Water and Increased Dry Matter Partitioned to Grain Contribute to Yield of Common Bean Improved for Drought Resistance. Frontiers in Plant Science, 2016, 7, 660.	1.7	129
16	Monitoring of aluminium-induced inhibition of root elongation in four maize cultivars differing in tolerance to aluminium and proton toxicity. Physiologia Plantarum, 1995, 93, 265-271.	2.6	112
17	Kinetics of xylem loading, membrane potential maintenance, and sensitivity of <scp><scp>K⁺</scp></scp>â€permeable channels to reactive oxygen species: physiological traits that differentiate salinity tolerance between pea and barley. Plant, Cell and Environment, 2014, 37, 589-600.	2.8	107
18	The NPR1-dependent salicylic acid signalling pathway is pivotal for enhanced salt and oxidative stress tolerance in Arabidopsis. Journal of Experimental Botany, 2015, 66, 1865-1875.	2.4	105

#	Article	IF	Citations
19	Localization of aluminium in tea (Camellia sinensis) leaves using low energy X-ray fluorescence spectro-microscopy. Journal of Plant Research, 2011, 124, 165-172.	1.2	103
20	Water Relations of Chromium VI Treated Bush Bean Plants (Phaseolus vulgarisL. cv. Contender) under both Normal and Water Stress Conditions. Journal of Experimental Botany, 1986, 37, 178-187.	2.4	96
21	Phytoremediation capability of native plant species living on Pb-Zn and Hg-As mining wastes in the Cantabrian range, north of Spain. Journal of Geochemical Exploration, 2017, 174, 10-20.	1.5	96
22	Zinc hyperaccumulation in Thlaspi caerulescens. II. Influence on organic acids. Journal of Plant Nutrition, 1996, 19, 1541-1550.	0.9	92
23	Monitoring of aluminium-induced inhibition of root elongation in four maize cultivars differing in tolerance to aluminium and proton toxicity. Physiologia Plantarum, 1995, 93, 265-271.	2.6	86
24	Title is missing!. Plant and Soil, 2001, 230, 247-256.	1.8	85
25	Calciumâ€•and potassiumâ€permeable plasma membrane transporters are activated by copper in <i>Arabidopsis</i> root tips: linking copper transport with cytosolic hydroxyl radical production. Plant, Cell and Environment, 2013, 36, 844-855.	2.8	85
26	Different Effects of Aluminum on the Actin Cytoskeleton and Brefeldin A-Sensitive Vesicle Recycling in Root Apex Cells of Two Maize Varieties Differing in Root Elongation Rate and Aluminum Tolerance. Plant and Cell Physiology, 2009, 50, 528-540.	1.5	84
27	Mechanisms of aluminumâ€induced growth stimulation in tea (<i>Camellia sinensis</i>). Journal of Plant Nutrition and Soil Science, 2013, 176, 616-625.	1.1	82
28	Metabolism of carbamazepine in plant roots and endophytic rhizobacteria isolated from Phragmites australis. Journal of Hazardous Materials, 2018, 342, 85-95.	6.5	81
29	Boron-induced amelioration of aluminium toxicity in a monocot and a dicot species. Journal of Plant Physiology, 2008, 165, 504-513.	1.6	80
30	Abscisic Acid Decreases Leaf Na+ Exclusion in Salt-Treated Phaseolus vulgaris L.. Journal of Plant Growth Regulation, 2009, 28, 187-192.	2.8	72
31	Influence of zinc hyperaccumulation on glucosinolates in Thlaspi caerulescens. New Phytologist, 2001, 151, 621-626.	3.5	71
32	Efficient leaf ion partitioning, an overriding condition for abscisic acidâ€controlled stomatal and leaf growth responses to NaCl salinization in two legumes. Journal of Experimental Botany, 2003, 54, 2111-2119.	2.4	71
33	Transport and Use of Bicarbonate in Plants: Current Knowledge and Challenges Ahead. International Journal of Molecular Sciences, 2018, 19, 1352.	1.8	71
34	Signal cross talk in Arabidopsis exposed to cadmium, silicon, and Botrytis cinerea. Planta, 2013, 237, 337-349.	1.6	70
35	Distinctive effects of cadmium on glucosinolate profiles in Cd hyperaccumulator Thlaspi praecox and non-hyperaccumulator Thlaspi arvense. Plant and Soil, 2006, 288, 333-341.	1.8	69
36	Influence of silicon pretreatment on aluminium toxicity in maize roots. Plant and Soil, 1997, 190, 203-209.	1.8	68

#	Article	IF	Citations
37	Shoot accumulation of several trace elements in native plant species from contaminated soils in the Peruvian Andes. Journal of Geochemical Exploration, 2012, 113, 106-111.	1.5	65
38	Accumulation of Pb and Zn in Bidens triplinervia and Senecio sp. spontaneous species from mine spoils in Peru and their potential use in phytoremediation. Journal of Geochemical Exploration, 2012, 123, 109-113.	1.5	62
39	Estimation of phenotypic variability in symbiotic nitrogen fixation ability of common bean under drought stress using 15N natural abundance in grain. European Journal of Agronomy, 2016, 79, 66-73.	1.9	62
40	Endogenous abscisic acid levels are linked to decreased growth of bush bean plants treated with NaCl. Physiologia Plantarum, 1997, 101, 17-22.	2.6	58
41	Callose production as indicator of aluminum toxicity in bean cultivars. Journal of Plant Nutrition, 1999, 22, 1-10.	0.9	58
42	Phosphorus Efficiency and Root Exudates in Two Contrasting Tropical Maize Varieties. Journal of Plant Nutrition, 2007, 30, 887-900.	0.9	58
43	Transition metals: A double edge sward in ROS generation and signaling. Plant Signaling and Behavior, 2013, 8, e23425.	1.2	57
44	Aluminium Tolerance of Maize Cultivars as Assessed by Callose Production and Root Elongation. Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science, 1994, 157, 447-451.	0.4	56
45	Constitutive and aluminium-induced patterns of phenolic compounds in two maize varieties differing in aluminium tolerance. Journal of Inorganic Biochemistry, 2009, 103, 1486-1490.	1.5	56
46	Endogenous jasmonic and salicylic acids levels in the Cd-hyperaccumulator Noccaea (Thlaspi) praecox exposed to fungal infection and/or mechanical stress. Plant Cell Reports, 2013, 32, 1243-1249.	2.8	55
47	Copper-induced oxidative damage and enhanced antioxidant defenses in the root apex of maize cultivars differing in Cu tolerance. Environmental and Experimental Botany, 2009, 67, 415-420.	2.0	54
48	Growth, physiological, biochemical and ionic responses of pistachio seedlings to mild and high salinity. Trees - Structure and Function, 2014, 28, 1065-1078.	0.9	54
49	Both aluminum and ABA induce the expression of an ABC-like transporter gene (FeALS3) in the Al-tolerant species Fagopyrum esculentum. Environmental and Experimental Botany, 2015, 111, 74-82.	2.0	54
50	Title is missing!. Plant and Soil, 2003, 251, 55-63.	1.8	52
51	Changes in elemental uptake and arbuscular mycorrhizal colonisation during the life cycle of Thlaspi praecox Wulfen. Chemosphere, 2007, 69, 1602-1609.	4.2	50
52	Amelioration of iron toxicity: A mechanism for aluminum-induced growth stimulation in tea plants. Journal of Inorganic Biochemistry, 2013, 128, 183-187.	1.5	50
53	Nodulation by Sinorhizobium meliloti originated from a mining soil alleviates Cd toxicity and increases Cd-phytoextraction in Medicago sativa L.. Frontiers in Plant Science, 2015, 6, 863.	1.7	50
54	High salinity helps the halophyte Sesuvium portulacastrum in defense against Cd toxicity by maintaining redox balance and photosynthesis. Planta, 2016, 244, 333-346.	1.6	50

#	Article	IF	Citations
55	Zinc hyperaccumulation in Thlaspi caerulescens. I. Influence on growth and mineral nutrition. Journal of Plant Nutrition, 1996, 19, 1531-1540.	0.9	49
56	Cynara cardunculus a potentially useful plant for remediation of soils polluted with cadmium or arsenic. Journal of Geochemical Exploration, 2012, 123, 122-127.	1.5	49
57	Arbuscular mycorrhizal fungi alleviate low-temperature stress and increase freezing resistance as a substitute for acclimation treatment in barley. Crop and Pasture Science, 2019, 70, 218.	0.7	49
58	Determination of glucosinolates in rapeseed and Thlaspi caerulescens plants by liquid chromatographyâ€"atmospheric pressure chemical ionization mass spectrometry. Journal of Chromatography A, 2000, 889, 75-81.	1.8	47
59	Role of sodium in the ABA-mediated long-term growth response of bean to salt stress. Physiologia Plantarum, 1998, 104, 299-305.	2.6	45
60	A role for cyclic hydroxamates in aluminium resistance in maize?. Journal of Inorganic Biochemistry, 2005, 99, 1830-1836.	1.5	45
61	Salinity Is an Agent of Divergent Selection Driving Local Adaptation of Arabidopsis to Coastal Habitats. Plant Physiology, 2015, 168, 915-929.	2.3	44
62	Fluctuating selection on migrant adaptive sodium transporter alleles in coastal <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12443-E12452.	3.3	44
63	Aluminium-induced alteration of ion homeostasis in root tip vacuoles of two maize varieties differing in Al tolerance. Plant Science, 2011, 180, 709-715.	1.7	42
64	Aluminium-induced changes in root epidermal cell patterning, a distinctive feature of hyperresistance to Al in Brachiaria decumbens. Journal of Inorganic Biochemistry, 2011, 105, 1477-1483.	1.5	41
65	NaCl alleviates Cd toxicity by changing its chemical forms of accumulation in the halophyte Sesuvium portulacastrum. Environmental Science and Pollution Research, 2015, 22, 10769-10777.	2.7	41
66	Root traits and their potential links to plant ideotypes to improve drought resistance in common bean. Theoretical and Experimental Plant Physiology, 2017, 29, 143-154.	1.1	41
67	Molecular characterization of the citrate transporter gene <i><scp>TaMATE1</scp></i> and expression analysis of upstream genes involved in organic acid transport under Al stress in bread wheat (<i>Triticum aestivum</i>). Physiologia Plantarum, 2014, 152, 441-452.	2.6	40
68	Improvement of drought tolerance in Tobacco (<i>Nicotiana rustica</i> L.) plants by Silicon. Journal of Plant Nutrition, 2017, 40, 1661-1676.	0.9	40
69	Zinc triggers signaling mechanisms and defense responses promoting resistance to Alternaria brassicicola in Arabidopsis thaliana. Plant Science, 2016, 249, 13-24.	1.7	38
70	Ion allocation in two different salt-tolerant MediterraneanMedicagospecies. Journal of Plant Physiology, 2003, 160, 1361-1365.	1.6	37
71	Relationship between expression of the PM H+-ATPase, growth and ion partitioning in the leaves of salt-treated Medicago species. Planta, 2005, 221, 557-566.	1.6	37
72	Differential aluminum resistance in Brachiaria species. Environmental and Experimental Botany, 2013, 89, 11-18.	2.0	35

#	ARTICLE	IF	CITATIONS
73	Antimony accumulation and toxicity tolerance mechanisms in Trifolium species. Journal of Geochemical Exploration, 2014, 147, 167-172.	1.5	34
74	Microbial homoserine lactones (AHLs) are effectors of root morphological changes in barley. Plant Science, 2016, 253, 130-140.	1.7	32
75	How Plants Handle Trivalent (+3) Elements. International Journal of Molecular Sciences, 2019, 20, 3984.	1.8	30
76	Beneficial and Toxic Effects of Chromium in Plants: Solution Culture, Pot and Field Studies.. Studies in Environmental Science, 1993, , 147-171.	0.0	29
77	Soil carbonate drives local adaptation in <scp><i>Arabidopsis thaliana</i></scp>. Plant, Cell and Environment, 2019, 42, 2384-2398.	2.8	29
78	Increase in steviol glycosides production from Stevia rebaudiana Bertoni under organo-mineral fertilization. Industrial Crops and Products, 2020, 147, 112220.	2.5	29
79	Interactions between aluminum and boron in tea (Camellia sinensis) plants. Acta Physiologiae Plantarum, 2015, 37, 1.	1.0	28
80	Influence of the Ca/Mg ratio on Cu resistance in three Silene armeria ecotypes adapted to calcareous soil or to different, Ni- or Cu-enriched, serpentine sites. Journal of Plant Physiology, 2003, 160, 1451-1456.	1.6	27
81	Glucosinolate Profiles Change During the Life Cycle and Mycorrhizal Colonization in a Cd/Zn Hyperaccumulator Thlaspi praecox (Brassicaceae). Journal of Chemical Ecology, 2008, 34, 1038-1044.	0.9	27
82	Differential activation of genes related to aluminium tolerance in two contrasting rice cultivars. Journal of Inorganic Biochemistry, 2015, 152, 160-166.	1.5	27
83	Zinc hyperaccumulation substitutes for defense failures beyond salicylate and jasmonate signaling pathways of <i>Alternaria brassicicola</i> attack in <i>Noccaea caerulescens</i>. Physiologia Plantarum, 2017, 159, 401-415.	2.6	27
84	Hyperaccumulation of trace elements: from uptake and tolerance mechanisms to litter decomposition; selenium as an example. Plant and Soil, 2011, 341, 31-35.	1.8	26
85	Salt tolerance mechanisms in three Irano-Turanian Brassicaceae halophytes relatives of Arabidopsis thaliana. Journal of Plant Research, 2018, 131, 1029-1046.	1.2	25
86	Fractionation of chromium in tannery sludge-amended soil and its availability to fenugreek plants. Journal of Soils and Sediments, 2014, 14, 697-702.	1.5	22
87	Sodiumâ€calcium interactions with growth, water, and photosynthetic parameters in saltâ€treated beans. Journal of Plant Nutrition and Soil Science, 2009, 172, 637-643.	1.1	21
88	Aluminium alters mineral composition and polyphenol metabolism in leaves of tea plants (Camellia) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.5	21
89	The standard electrode potential (EÎ) predicts the prooxidant activity and the acute toxicity of metal ions. Journal of Inorganic Biochemistry, 2011, 105, 1438-1445.	1.5	19
90	Boron re-translocation in tea (Camellia sinensis (L.) O. Kuntze) plants. Acta Physiologiae Plantarum, 2013, 35, 2373-2381.	1.0	19

#	Article	IF	Citations
91	Characterization of Zinc and Cadmium Hyperaccumulation in Three Noccaea (Brassicaceae) Populations from Non-metalliferous Sites in the Eastern Pyrenees. Frontiers in Plant Science, 2016, 7, 128.	1.7	19
92	Smilax aspera L. an evergreen Mediterranean climber for phytoremediation. Journal of Geochemical Exploration, 2012, 123, 41-44.	1.5	18
93	Chromium-induced inhibition of ethylene evolution in bean (Phaseolus vulgaris) leaves. Physiologia Plantarum, 1993, 89, 404-408.	2.6	17
94	Cadmiumâ€induced changes in glutathione and phenolics of <i>Thlaspi</i> and <i>Noccaea</i> species differing in Cd accumulation. Journal of Plant Nutrition and Soil Science, 2013, 176, 851-858.	1.1	17
95	Mechanisms of Hyper-resistance and Hyper-tolerance to Aluminum in Plants. Signaling and Communication in Plants, 2015, , 81-98.	0.5	16
96	A proteomic approach to the mechanisms underlying activation of aluminium resistance in roots of Urochloa decumbens. Journal of Inorganic Biochemistry, 2018, 181, 145-151.	1.5	15
97	Contrasting allocation of magnesium, calcium and manganese in leaves of tea (Camellia sinensis (L.)) Tj ETQq1 1 0.784314 rgBT /Ove Toxicology, 2020, 135, 110974.	1.8	15
98	Characterization of the tolerance to excess manganese in four maize varieties. Soil Science and Plant Nutrition, 2009, 55, 747-753.	0.8	13
99	Selenium activates components of iron acquisition machinery in oilseed rape roots. Plant and Soil, 2020, 452, 569-586.	1.8	12
100	Differential Physiological Responses of Portuguese Bread Wheat (Triticum aestivum L.) Genotypes under Aluminium Stress. Diversity, 2016, 8, 26.	0.7	11
101	Endogenous abscisic acid levels are linked to decreased growth of bush bean plants treated with NaCl. Physiologia Plantarum, 1997, 101, 17-22.	2.6	11
102	Relationship between carbon partitioning and Na+, Cl- and ABA allocation in fruits of salt-stressed bean. Journal of Plant Physiology, 2000, 157, 637-642.	1.6	10
103	The effect of silicon on the symptoms of manganese toxicity in maize plants. Acta Biologica Hungarica, 2008, 59, 479-487.	0.7	10
104	Cadmium hampers salt tolerance of Sesuvium portulacastrum. Plant Physiology and Biochemistry, 2017, 115, 390-399.	2.8	10
105	Fingerprinting metabolomics in tropical mistletoes: A case study with facultative aluminum-accumulating species. Phytochemistry Letters, 2018, 25, 90-94.	0.6	10
106	Transcriptomics Reveals Fast Changes in Salicylate and Jasmonate Signaling Pathways in Shoots of Carbonate-Tolerant Arabidopsis thaliana under Bicarbonate Exposure. International Journal of Molecular Sciences, 2021, 22, 1226.	1.8	10
107	The arbuscular mycorrhizal mycelium from barley differentially influences various defense parameters in the non-host sugar beet under co-cultivation. Mycorrhiza, 2020, 30, 647-661.	1.3	9
108	Adaptation to coastal soils through pleiotropic boosting of ion and stress hormone concentrations in wild <i>Arabidopsis thaliana</i>. New Phytologist, 2021, 232, 208-220.	3.5	9

#	Article	IF	Citations
109	A highly versatile and easily configurable system for plant electrophysiology. MethodsX, 2016, 3, 436-451.	0.7	8
110	Mechanisms of storage and detoxification of Al in two tropical mistletoes. Environmental and Experimental Botany, 2018, 150, 37-45.	2.0	8
111	Salinity is a prevailing factor for amelioration of wheat blast by biocontrol agents. Biological Control, 2018, 125, 81-89.	1.4	7
112	Root Behavior in Response to Aluminum Toxicity. Signaling and Communication in Plants, 2009, , 21-43.	0.5	7
113	Breeding for Al Tolerance by Unravelling Genetic Diversity in Bread Wheat. Signaling and Communication in Plants, 2015, , 125-153.	0.5	6
114	Aluminium detoxification in facultative (Passovia ovata (Pohl ex DC.) Kuijt and Struthanthus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 552 58-63.	1.4	6
115	At the Crossroads of Metal Hyperaccumulation and Glucosinolates: Is There Anything Out There?. Soil Biology, 2010, , 139-161.	0.6	6
116	Sugar beet profits from intercropping with wheat both under optimum and deficient phosphorus supply. Acta Agriculturae Slovenica, 2018, 111, 85.	0.2	5
117	Snails prefer it sweet: A multifactorial test of the metal defence hypothesis. Physiologia Plantarum, 2019, 165, 209-218.	2.6	5
118	Evolution of salt tolerance in Arabidopsis thaliana on siliceous soils does not confer tolerance to saline calcareous soils. Plant and Soil, 2022, 476, 455-475.	1.8	4
119	Arthropod Diversity Influenced by Two Musa-Based Agroecosystems in Ecuador. Agriculture (Switzerland), 2020, 10, 235.	1.4	3
120	Growth enhancement of Brassica napus under both deficient and adequate iron supply by intercropping with Hordeum vulgare: a hydroponic study. Plant Biosystems, 2021, 155, 632-646.	0.8	3
121	Altitude and fertilization type: concentration of nutrients and production of biomass in <i>Stevia rebaudiana</i> Bertoni. Journal of Plant Nutrition, 2021, 44, 322-336.	0.9	3
122	Genome-Wide Association Study Reveals Key Genes for Differential Lead Accumulation and Tolerance in Natural Arabidopsis thaliana Accessions. Frontiers in Plant Science, 2021, 12, 689316.	1.7	3
123	Availability of cu and zn to plants growing on and off a malachite site. Toxicological and Environmental Chemistry, 1995, 52, 143-151.	0.6	2
124	A native Zn-solubilising bacterium from mine soil promotes plant growth and facilitates phytoremediation. Journal of Soils and Sediments, 2021, 21, 2301-2314.	1.5	2
125	Luxury zinc supply acts as antiaging agent and enhances reproductive fitness in Arabidopsis thaliana. Plant Science, 2021, 304, 110805.	1.7	1
126	Chromium-induced inhibition of ethylene evolution in bean (Phaseolus vulgaris) leaves. Physiologia Plantarum, 1993, 89, 404-408.	2.6	1

#	Article	IF	Citations
127	Identifying the Specific Root Microbiome of the Hyperaccumulator Growing in Non-metalliferous Soils. Frontiers in Microbiology, 2021, 12, 639997.	1.5	0
128	Rhizosphere Acidification as the Main Trait Characterizing the Differential In Vitro Tolerance to Iron Chlorosis in Interspecific Pyrus Hybrids. Horticulturae, 2022, 8, 551.	1.2	0