Jiayin Pang

List of Publications by Year
in descending order

71 papers	2,851 citations	159525 30 h-index	189801 50 g-index
75 all docs	75 docs citations	75 times ranked	3001 citing authors

#	Article	IF	Citations
1	Tradeoffs among root morphology, exudation and mycorrhizal symbioses for phosphorusâ€acquisition strategies of 16 crop species. New Phytologist, 2019, 223, 882-895.	3.5	235
2	Xylem ionic relations and salinity tolerance in barley. Plant Journal, 2010, 61, 839-853.	2.8	198
3	Carbon trading for phosphorus gain: the balance between rhizosphere carboxylates and arbuscular mycorrhizal symbiosis in plant phosphorus acquisition. Plant, Cell and Environment, 2012, 35, 2170-2180.	2.8	148
4	The carboxylateâ€releasing phosphorusâ€mobilizing strategy can be proxied by foliar manganese concentration in a large set of chickpea germplasm under low phosphorus supply. New Phytologist, 2018, 219, 518-529.	3.5	130
5	Growth and physiological responses of six barley genotypes to waterlogging and subsequent recovery. Australian Journal of Agricultural Research, 2004, 55, 895.	1.5	126
6	Investigating Drought Tolerance in Chickpea Using Genome-Wide Association Mapping and Genomic Selection Based on Whole-Genome Resequencing Data. Frontiers in Plant Science, 2018, 9, 190.	1.7	111
7	Variation in morphological and physiological parameters in herbaceous perennial legumes in response to phosphorus supply. Plant and Soil, 2010, 331, 241-255.	1.8	110
8	Unwrapping the rhizosheath. Plant and Soil, 2017, 418, 129-139.	1.8	94
9	Microelectrode ion and O2 fluxes measurements reveal differential sensitivity of barley root tissues to hypoxia. Plant, Cell and Environment, 2006, 29, 1107-1121.	2.8	88
10	Variation in seedling growth of 11 perennial legumes in response to phosphorus supply. Plant and Soil, 2010, 328, 133-143.	1.8	86
11	Physiological aspects of vetiver grass for rehabilitation in abandoned metalliferous mine wastes. Chemosphere, 2003, 52, 1559-1570.	4.2	77
12	Wheat genotypes with high early vigour accumulate more nitrogen and have higher photosynthetic nitrogen use efficiency during early growth. Functional Plant Biology, 2014, 41, 215.	1.1	70
13	Response of chickpea (<i>Cicer arietinum</i>L.) to terminal drought: leaf stomatal conductance, pod abscisic acid concentration, and seed set. Journal of Experimental Botany, 2017, 68, erw153.	2.4	67
14	Effect of Secondary Metabolites Associated with Anaerobic Soil Conditions on Ion Fluxes and Electrophysiology in Barley Roots. Plant Physiology, 2007, 145, 266-276.	2.3	63
15	Phosphorus acquisition and utilisation in crop legumes under global change. Current Opinion in Plant Biology, 2018, 45, 248-254.	3.5	58
16	The influence of nitrogen availability on anatomical and physiological responses of Populus alba Ã— P. glandulosa to drought stress. BMC Plant Biology, 2019, 19, 63.	1.6	53
17	Electrical signalling and cytokinins mediate effects of light and root cutting on ion uptake in intact plants. Plant, Cell and Environment, 2009, 32, 194-207.	2.8	48
18	Responses of foliar phosphorus fractions to soil age are diverse along a 2ÂMyr dune chronosequence. New Phytologist, 2019, 223, 1621-1633.	3.5	46

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19	The effect of pH on morphological and physiological root traits of Lupinus angustifolius treated with struvite as a recycled phosphorus source. Plant and Soil, 2019, 434, 65-78.	1.8	46
20	Growth, morphological and physiological responses of alfalfa (Medicago sativa) to phosphorus supply in two alkaline soils. Plant and Soil, 2017, 416, 565-584.	1.8	43
21	Supplementary Calcium Restores Peanut (Arachis hypogaea) Growth and Photosynthetic Capacity Under Low Nocturnal Temperature. Frontiers in Plant Science, 2019, 10, 1637.	1.7	42
22	Phosphorus-fertilisation has differential effects on leaf growth and photosynthetic capacity of Arachis hypogaea L.. Plant and Soil, 2020, 447, 99-116.	1.8	41
23	Leaf transpiration plays a role in phosphorus acquisition among a large set of chickpea genotypes. Plant, Cell and Environment, 2018, 41, 2069-2079.	2.8	40
24	Commensalism in an agroecosystem: hydraulic redistribution by deepâ€rooted legumes improves survival of a droughted shallowâ€rooted legume companion. Physiologia Plantarum, 2013, 149, 79-90.	2.6	39
25	Amelioration of detrimental effects of waterlogging by foliar nutrient sprays in barley. Functional Plant Biology, 2007, 34, 221.	1.1	36
26	Peppermint trees shift their phosphorus-acquisition strategy along a strong gradient of plant-available phosphorus by increasing their transpiration at very low phosphorus availability. Oecologia, 2017, 185, 387-400.	0.9	36
27	Effects of biochar application on the abundance and community composition of denitrifying bacteria in a reclaimed soil from coal mining subsidence area. Science of the Total Environment, 2018, 625, 1218-1224.	3.9	35
28	Contrasting patterns in biomass allocation, root morphology and mycorrhizal symbiosis for phosphorus acquisition among 20 chickpea genotypes with different amounts of rhizosheath carboxylates. Functional Ecology, 2020, 34, 1311-1324.	1.7	35
29	Integrated transcriptomics and metabolomics analysis to characterize alkali stress responses in canola (Brassica napus L.). Plant Physiology and Biochemistry, 2021, 166, 605-620.	2.8	35
30	Contrasting responses to drought stress in herbaceous perennial legumes. Plant and Soil, 2011, 348, 299-314.	1.8	34
31	Pattern of Water Use and Seed Yield under Terminal Drought in Chickpea Genotypes. Frontiers in Plant Science, 2017, 8, 1375.	1.7	34
32	Strong phosphorus (P)-zinc (Zn) interactions in a calcareous soil-alfalfa system suggest that rational P fertilization should be considered for Zn biofortification on Zn-deficient soils and phytoremediation of Zn-contaminated soils. Plant and Soil, 2021, 461, 119-134.	1.8	33
33	Effects of biochar amendment on bacterial and fungal communities in the reclaimed soil from a mining subsidence area. Environmental Science and Pollution Research, 2019, 26, 34368-34376.	2.7	31
34	Closing the circle for urban food waste anaerobic digestion: The use of digestate and biochar on plant growth in potting soil. Journal of Cleaner Production, 2022, 347, 131071.	4.6	31
35	Light-induced transient ion flux responses from maize leaves and their association with leaf growth and photosynthesis. Plant, Cell and Environment, 2005, 28, 340-352.	2.8	30
36	Physiological and morphological adaptations of herbaceous perennial legumes allow differential access to sources of varyingly soluble phosphate. Physiologia Plantarum, 2015, 154, 511-525.	2.6	30

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37	Shoot biomass in wheat is the driver for nitrogen uptake under low nitrogen supply, but not under high nitrogen supply. Field Crops Research, 2014, 165, 92-98.	2.3	28
38	Seed germination of Caragana species from different regions is strongly driven by environmental cues and not phylogenetic signals. Scientific Reports, 2017, 7, 11248.	1.6	28
39	Release of tartrate as a major carboxylate by alfalfa (Medicago sativa L.) under phosphorus deficiency and the effect of soil nitrogen supply. Plant and Soil, 2020, 449, 169-178.	1.8	26
40	Straw retention coupled with mineral phosphorus fertilizer for reducing phosphorus fertilizer input and improving cotton yield in coastal saline soils. Field Crops Research, 2021, 274, 108309.	2.3	21
41	Exogenous Calcium Alleviates Nocturnal Chilling-Induced Feedback Inhibition of Photosynthesis by Improving Sink Demand in Peanut (Arachis hypogaea). Frontiers in Plant Science, 2020, 11, 607029.	1.7	19
42	The influence of shoot and root size on nitrogen uptake in wheat is affected by nitrate affinity in the roots during early growth. Functional Plant Biology, 2015, 42, 1179.	1.1	17
43	Co-infection by Soil-Borne Fungal Pathogens Alters Disease Responses Among Diverse Alfalfa Varieties. Frontiers in Microbiology, 2021, 12, 664385.	1.5	17
44	Soil phosphorus supply affects nodulation and N:P ratio in 11 perennial legume seedlings. Crop and Pasture Science, 2011, 62, 992.	0.7	15
45	Phytoextraction of rhenium by lucerne (Medicago sativa) and erect milkvetch (Astragalus adsurgens) from alkaline soils amended with coal fly ash. Science of the Total Environment, 2018, 630, 570-577.	3.9	15
46	A significant increase in rhizosheath carboxylates and greater specific root length in response to terminal drought is associated with greater relative phosphorus acquisition in chickpea. Plant and Soil, 2021, 460, 51-68.	1.8	15
47	Novel Genes and Genetic Loci Associated With Root Morphological Traits, Phosphorus-Acquisition Efficiency and Phosphorus-Use Efficiency in Chickpea. Frontiers in Plant Science, 2021, 12, 636973.	1.7	15
48	Alkaline Salt Inhibits Seed Germination and Seedling Growth of Canola More Than Neutral Salt. Frontiers in Plant Science, 2022, 13, 814755.	1.7	15
49	Foliar nutrient allocation patterns in <i>Banksia attenuata</i> and <i>Banksia sessilis</i> differing in growth rate and adaptation to low-phosphorus habitats. Annals of Botany, 2021, 128, 419-430.	1.4	13
50	Anatomy and transcriptome analysis in leaves revealed how nitrogen (N) availability influence drought acclimation of Populus. Trees - Structure and Function, 2019, 33, 1003-1014.	0.9	12
51	The application potential of coal fly ash for selenium biofortification. Advances in Agronomy, 2019, 157, 1-54.	2.4	11
52	Transcriptomic and metabolomics-based analysis of key biological pathways reveals the role of lipid metabolism in response to salt stress in the root system of Brassica napus. Plant Growth Regulation, 2022, 97, 127-141.	1.8	11
53	Accumulation of phosphorus and calcium in different cells protects the phosphorus-hyperaccumulator Ptilotus exaltatus from phosphorus toxicity in high-phosphorus soils. Chemosphere, 2021, 264, 128438.	4.2	10
54	In addition to foliar manganese concentration, both iron and zinc provide proxies for rhizosheath carboxylates in chickpea under low phosphorus supply. Plant and Soil, 2021, 465, 31-46.	1.8	10

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55	Saltâ€'responsive transcriptome analysis of canola roots reveals candidate genes involved in the key metabolic pathway in response to salt stress. Scientific Reports, 2022, 12, 1666.	1.6	10
56	Increasing nitrogen supply to phosphorus-deficient Medicago sativa decreases shoot growth and enhances root exudation of tartrate to discharge surplus carbon dependent on nitrogen form. Plant and Soil, 2021, 469, 193-211.	1.8	9
57	Interactive effects of phosphorus fertilization and salinity on plant growth, phosphorus and sodium status, and tartrate exudation by roots of two alfalfa cultivars. Annals of Botany, 2022, 129, 53-64.	1.4	8
58	Advances in understanding plant root uptake of phosphorus. Burleigh Dodds Series in Agricultural Science, 2021, , 321-372.	0.1	8
59	Biochar Improves the Growth Performance of Maize Seedling in Response to Antimony Stress. Water, Air, and Soil Pollution, 2020, 231, 1.	1.1	7
60	Rapid nitrogen fixation contributes to a similar growth and photosynthetic rate of <i>Robinia pseudoacacia</i> supplied with different levels of nitrogen. Tree Physiology, 2021, 41, 177-189.	1.4	7
61	Membrane Transporters and Waterlogging Tolerance. , 2010, , 197-219.		7
62	Effects of NH4 + and NO3 â^’ on sexual dimorphism responses to manganese stress in a dioecious tree species. Trees - Structure and Function, 2018, 32, 473-488.	0.9	5
63	Mulling over the mulla mullas: revisiting phosphorus hyperaccumulation in the Australian plant genus Ptilotus (Amaranthaceae). Australian Journal of Botany, 2020, 68, 63.	0.3	5
64	Amending aeolian sandy soil in the Mu Us Sandy Land of China with Pisha sandstone and increasing phosphorus supply were more effective than increasing water supply for improving plant growth and phosphorus and nitrogen nutrition of lucerne (Medicago sativa). Crop and Pasture Science, 2020, 71, 785.	0.7	5
65	Dryland field validation of genotypic variation in salt tolerance of chickpea (Cicer arietinum L.) determined under controlled conditions. Field Crops Research, 2022, 276, 108392.	2.3	5
66	Phenotypic plasticity of four Chenopodiaceae species with contrasting salineâ€"sodic tolerance in response to increased salinityâ€"sodicity. Ecology and Evolution, 2019, 9, 1545-1553.	0.8	4
67	Lower seed P content does not affect early growth in chickpea, provided starter P fertiliser is supplied. Plant and Soil, 2021, 463, 113-124.	1.8	4
68	Targeting Low-Phytate Soybean Genotypes Without Compromising Desirable Phosphorus-Acquisition Traits. Frontiers in Genetics, 2020, 11, 574547.	1.1	3
69	Editorial: Domestication of Agronomic Traits in Legume Crops. Frontiers in Genetics, 2021, 12, 707600.	1.1	3
70	Performance of twoLupinus albusL. cultivars in response to three soil pH levels. Experimental Agriculture, 2020, 56, 321-330.	0.4	2
71	Root diameter decreases and rhizosheath carboxylates and acid phosphatases increase in chickpea during plant development. Plant and Soil, 0, , .	1.8	2