Mohsen Zarebanadkouki

List of Publications by Year
in descending order

64 papers	3,090 citations	136740 32 h-index	168136 53 g-index
65 all docs	65 docs citations	65 times ranked	2716 citing authors

#	Article	IF	Citations
1	Interactive effect of salinity and Ca to Mg ratio of irrigation water on pistachio growth parameters and its ionic composition in a calcareous soil. New Zealand Journal of Crop and Horticultural Science, 2023, 51, 432-450.	0.7	1
2	Coupled effects of soil drying and salinity on soilâ€"plant hydraulics. Plant Physiology, 2022, 190, 1228-1241.	2.3	11
3	Effect of EpichloÃ« fungal endophyte symbiosis on tall fescue to cope with flooding-derived oxygen-limited conditions depends on the host genotype. Plant and Soil, 2021, 468, 353-373.	1.8	9
4	The potential impact of biochar: Soil hydraulics and responses of maize under soil drying cycles. Geoderma, 2021, 401, 115301.	2.3	0
5	Physics of Viscous Bridges in Soil Biological Hotspots. Water Resources Research, 2021, 57, e2021WR030052.	1.7	11
6	Impacts of Logging-Associated Compaction on Forest Soils: A Meta-Analysis. Frontiers in Forests and Global Change, 2021, 4, .	1.0	29
7	Spatial Heterogeneity Enables Higher Root Water Uptake in Dry Soil but Protracts Water Stress After Transpiration Decline: A Numerical Study. Water Resources Research, 2020, 56, e2019WR025501.	1.7	7
8	Linear relation between leaf xylem water potential and transpiration in pearl millet during soil drying. Plant and Soil, 2020, 447, 565-578.	1.8	14
9	The Effect of Humic Acid and Biochar on Growth and Nutrients Uptake of Calendula (<i>Calendula) Tj ETQq1 1 0.784314 rgBT /Overlo	0.6	17
10	Quantification of hydraulic redistribution in maize roots using neutron radiography. Vadose Zone Journal, 2020, 19, e20084.	1.3	9
11	Mathematical modeling of arsenic(V) adsorption onto iron oxyhydroxides in an adsorption-submerged membrane hybrid system. Journal of Hazardous Materials, 2020, 400, 123221.	6.5	38
12	Stomatal closure prevents the drop in soil water potential around roots. New Phytologist, 2020, 226, 1541-1543.	3.5	28
13	The effect of root hairs on rhizosphere phosphatase activity. Journal of Plant Nutrition and Soil Science, 2020, 183, 382-388.	1.1	17
14	Biogenic amorphous silica as main driver for plant available water in soils. Scientific Reports, 2020, 10, 2424.	1.6	62
15	Increased water retention in the rhizosphere allows for high phosphatase activity in drying soil. Plant and Soil, 2019, 443, 259-271.	1.8	20
16	Microhydrological Niches in Soils: How Mucilage and EPS Alter the Biophysical Properties of the Rhizosphere and Other Biological Hotspots. Vadose Zone Journal, 2019, 18, 1-10.	1.3	73
17	The rhizosheath: a potential root trait helping plants to tolerate drought stress. Plant and Soil, 2019, 445, 565-575.	1.8	66
18	Root water uptake and its pathways across the root: quantification at the cellular scale. Scientific Reports, 2019, 9, 12979.	1.6	34

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19	Soil zymography: Simple and reliable? Review of current knowledge and optimization of the method. Rhizosphere, 2019, 11, 100161.	1.4	53
20	Visualization and quantification of root exudation using 14C imaging: challenges and uncertainties. Plant and Soil, 2019, 437, 473-485.	1.8	8
21	Measurements and simulation of leaf xylem water potential and root water uptake in heterogeneous soil water contents. Advances in Water Resources, 2019, 124, 96-105.	1.7	23
22	Physics and hydraulics of the rhizosphere network. Journal of Plant Nutrition and Soil Science, 2019, 182, 5-8.	1.1	17
23	Transpiration Reduction in Maize (Zea mays L) in Response to Soil Drying. Frontiers in Plant Science, 2019, 10, 1695.	1.7	34
24	Mucilage Facilitates Nutrient Diffusion in the Drying Rhizosphere. Vadose Zone Journal, 2019, 18, 1-13.	1.3	26
25	Nitrogen fertilization raises CO₂ efflux from inorganic carbon: A global assessment. Global Change Biology, 2018, 24, 2810-2817.	4.2	145
26	Hydraulic conductivity of soil-grown lupine and maize unbranched roots and maize root-shoot junctions. Journal of Plant Physiology, 2018, 227, 31-44.	1.6	46
27	Root hairs increase rhizosphere extension and carbon input to soil. Annals of Botany, 2018, 121, 61-69.	1.4	107
28	Spatial patterns of enzyme activities in the rhizosphere: Effects of root hairs and root radius. Soil Biology and Biochemistry, 2018, 118, 69-78.	4.2	86
29	Root type matters: measurement of water uptake by seminal, crown, and lateral roots in maize. Journal of Experimental Botany, 2018, 69, 1199-1206.	2.4	100
30	Rhizodeposition under drought is controlled by root growth rate and rhizosphere water content. Plant and Soil, 2018, 423, 429-442.	1.8	62
31	Degradation of Tibetan grasslands: Consequences for carbon and nutrient cycles. Agriculture, Ecosystems and Environment, 2018, 252, 93-104.	2.5	227
32	Engineering Rhizosphere Hydraulics: Pathways to Improve Plant Adaptation to Drought. Vadose Zone Journal, 2018, 17, 1-12.	1.3	27
33	Effects of Mucilage on Rhizosphere Hydraulic Functions Depend on Soil Particle Size. Vadose Zone Journal, 2018, 17, 1-11.	1.3	47
34	Spatiotemporal patterns of enzyme activities in the rhizosphere: effects of plant growth and root morphology. Biology and Fertility of Soils, 2018, 54, 819-828.	2.3	31
35	Impact of Pore-Scale Wettability on Rhizosphere Rewetting. Frontiers in Environmental Science, 2018, 6, .	1.5	9
36	Effects of rhizosphere wettability on microbial biomass, enzyme activities and localization. Rhizosphere, 2018, 7, 35-42.	1.4	21

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37	Rhizosphere hydrophobicity limits root water uptake after drying and subsequent rewetting. Plant and Soil, 2018, 428, 265-277.	1.8	17
38	Poreâ€Scale Distribution of Mucilage Affecting Water Repellency in the Rhizosphere. Vadose Zone Journal, 2018, 17, 1-9.	1.3	41
39	Spatio-temporal patterns of enzyme activities after manure application reflect mechanisms of niche differentiation between plants and microorganisms. Soil Biology and Biochemistry, 2017, 112, 100-109.	4.2	72
40	Rhizosphere engineering: Innovative improvement of root environment. Rhizosphere, 2017, 3, 176-184.	1.4	23
41	Labelling plants in the Chernobyl way: A new 137Cs and 14C foliar application approach to investigate rhizodeposition and biopore reuse. Plant and Soil, 2017, 417, 301-315.	1.8	12
42	Liquid bridges at the root-soil interface. Plant and Soil, 2017, 417, 1-15.	1.8	92
43	Bimodal Imaging at ICON Using Neutrons and X-rays. Physics Procedia, 2017, 88, 314-321.	1.2	35
44	Root hairs enable high transpiration rates in drying soils. New Phytologist, 2017, 216, 771-781.	3.5	123
45	Water movement through plant roots â€“ exact solutions of the water flow equation in roots with linear or exponential piecewise hydraulic properties. Hydrology and Earth System Sciences, 2017, 21, 6519-6540.	1.9	16
46	Recent developments in neutron imaging with applications for porous media research. Solid Earth, 2016, 7, 1281-1292.	1.2	34
47	Biophysical rhizosphere processes affecting root water uptake. Annals of Botany, 2016, 118, 561-571.	1.4	75
48	Simulation of root water uptake under consideration of nonequilibrium dynamics in the rhizosphere. Water Resources Research, 2016, 52, 5755-5770.	1.7	16
49	Estimation of the hydraulic conductivities of lupine roots by inverse modelling of high-resolution measurements of root water uptake. Annals of Botany, 2016, 118, 853-864.	1.4	42
50	Drying of mucilage causes water repellency in the rhizosphere of maize: measurements and modelling. Plant and Soil, 2016, 407, 161-171.	1.8	87
51	Water for Carbon, Carbon for Water. Vadose Zone Journal, 2016, 15, 1-10.	1.3	33
52	Rhizosphere shape of lentil and maize: Spatial distribution of enzyme activities. Soil Biology and Biochemistry, 2016, 96, 229-237.	4.2	148
53	Hydraulic conductivity of the root-soil interface of lupin in sandy soil after drying and rewetting. Plant and Soil, 2016, 398, 267-280.	1.8	42
54	Measurements of water uptake of maize roots: the key function of lateral roots. Plant and Soil, 2016, 398, 59-77.	1.8	85

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55	On-the-fly Neutron Tomography of Water Transport into Lupine Roots. Physics Procedia, 2015, 69, 292-298.	1.2	23
56	Reduced root water uptake after drying and rewetting. Journal of Plant Nutrition and Soil Science, 2014, 177, 227-236.	1.1	34
57	Mucilage exudation facilitates root water uptake in dry soils. Functional Plant Biology, 2014, 41, 1129.	1.1	129
58	Nonequilibrium water dynamics in the rhizosphere: How mucilage affects water flow in soils. Water Resources Research, 2014, 50, 6479-6495.	1.7	90
59	Visualization of Root Water Uptake: Quantification of Deuterated Water Transport in Roots Using Neutron Radiography and Numerical Modeling. Plant Physiology, 2014, 166, 487-499.	2.3	50
60	Comment on: â€œneutron imaging reveals internal plant water dynamicsâ€. Plant and Soil, 2013, 369, 25-27.	1.8	8
61	Where do roots take up water? Neutron radiography of water flow into the roots of transpiring plants growing in soil. New Phytologist, 2013, 199, 1034-1044.	3.5	99
62	Quantification and Modeling of Local Root Water Uptake Using Neutron Radiography and Deuterated Water. Vadose Zone Journal, 2012, 11, vzj2011.0196.	1.3	56
63	How the Rhizosphere May Favor Water Availability to Roots. Vadose Zone Journal, 2011, 10, 988-998.	1.3	81
64	Critical Soil Zinc Deficiency Concentration and Tissue Iron: Zinc Ratio as a Diagnostic Tool for Prediction of Zinc Deficiency in Corn. Journal of Plant Nutrition, 2009, 32, 1983-1993.	0.9	12