

Walter W Wenzel

List of Publications by Year in descending order

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docs citations

114
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8420
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#	ARTICLE	IF	CITATIONS
1	Pore characteristics of hydrochars and their role as a vector for soil bacteria: A critical review of engineering options. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 4147-4171.	12.8	12
2	Soil and land use factors control organic carbon status and accumulation in agricultural soils of Lower Austria. <i>Geoderma</i> , 2022, 409, 115595.	5.1	13
3	Co-localised phosphorus mobilization processes in the rhizosphere of field-grown maize jointly contribute to plant nutrition. <i>Soil Biology and Biochemistry</i> , 2022, 165, 108497.	8.8	27
4	Combining spectroscopic and flux measurement techniques to determine solid-phase speciation and solubility of phosphorus in agricultural soils. <i>Geoderma</i> , 2022, 410, 115677.	5.1	7
5	Tandem Probe Analysis Mode for Synchrotron XFM: Doubling Throughput Capacity. <i>Analytical Chemistry</i> , 2022, 94, 4584-4593.	6.5	3
6	In situ spatiotemporal solute imaging of metal corrosion on the example of magnesium. <i>Analytica Chimica Acta</i> , 2022, 1212, 339910.	5.4	3
7	Wheat yield prediction by zero sink and equilibrium-type soil phosphorus tests. <i>Pedosphere</i> , 2022, 32, 543-554.	4.0	1
8	A quick and simple spectrophotometric method to determine total carbon concentrations in root exudate samples of grass species. <i>Plant and Soil</i> , 2022, 478, 273-281.	3.7	4
9	Co-occurring increased phosphatase activity and labile P depletion in the rhizosphere of <i>Lupinus angustifolius</i> assessed with a novel, combined 2D-imaging approach. <i>Soil Biology and Biochemistry</i> , 2021, 153, 107963.	8.8	31
10	Optimizing Carbon Sequestration in Croplands: A Synthesis. <i>Agronomy</i> , 2021, 11, 882.	3.0	61
11	Antecedent soil moisture and rain intensity control pathways and quality of organic carbon exports from arable land. <i>Catena</i> , 2021, 202, 105297.	5.0	22
12	Diffusive gradients in thin films predicts crop response better than calcium-acetate-lactate extraction. <i>Nutrient Cycling in Agroecosystems</i> , 2021, 121, 227-240.	2.2	2
13	Effects of silicon amendments on grapevine, soil and wine. <i>Plant, Soil and Environment</i> , 2020, 66, 403-414.	2.2	8
14	Response of tungsten (W) solubility and chemical fractionation to changes in soil pH and soil aging. <i>Science of the Total Environment</i> , 2020, 731, 139224.	8.0	25
15	Potassium fixation in northern Iranian paddy soils. <i>Geoderma</i> , 2020, 375, 114475.	5.1	11
16	Short-Term Effects of Fertilization on Dissolved Organic Matter in Soil Leachate. <i>Water (Switzerland)</i> , 2020, 12, 1617.	2.7	15
17	Metal accumulation and rhizosphere characteristics of <i>Noccaea rotundifolia</i> ssp. <i>cepaefolia</i> . <i>Environmental Pollution</i> , 2020, 266, 115088.	7.5	10
18	Arsenic redox transformations and cycling in the rhizosphere of <i>Pteris vittata</i> and <i>Pteris quadriaurita</i> . <i>Environmental and Experimental Botany</i> , 2020, 177, 104122.	4.2	25

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19	Combined effects of carbonaceous-immobilizing agents and subsequent sulphur application on maize phytoextraction efficiency in highly contaminated soil. <i>Environmental Science and Pollution Research</i> , 2019, 26, 20866-20878.	5.3	3
20	Fungicide application increased copper-bioavailability and impaired nitrogen fixation through reduced root nodule formation on alfalfa. <i>Ecotoxicology</i> , 2019, 28, 599-611.	2.4	14
21	Silicon Availability from Chemically Diverse Fertilizers and Secondary Raw Materials. <i>Environmental Science & Technology</i> , 2019, 53, 5359-5368.	10.0	16
22	Functional Recycling of Biobased, Borate-Stabilized Insulation Materials As B Fertilizer. <i>Environmental Science & Technology</i> , 2019, 53, 14620-14629.	10.0	9
23	In situ observation of localized, sub-mm scale changes of phosphorus biogeochemistry in the rhizosphere. <i>Plant and Soil</i> , 2018, 424, 573-589.	3.7	59
24	Assessment of trace element phytoavailability in compost amended soils using different methodologies. <i>Journal of Soils and Sediments</i> , 2017, 17, 1251-1261.	3.0	25
25	Trace elements in the soil-plant interface: Phytoavailability, translocation, and phytoremediation—A review. <i>Earth-Science Reviews</i> , 2017, 171, 621-645.	9.1	588
26	Phytosiderophore-induced mobilization and uptake of Cd, Cu, Fe, Ni, Pb and Zn by wheat plants grown on metal-enriched soils. <i>Environmental and Experimental Botany</i> , 2017, 138, 67-76.	4.2	37
27	Integrating chemical imaging of cationic trace metal solutes and pH into a single hydrogel layer. <i>Analytica Chimica Acta</i> , 2017, 950, 88-97.	5.4	35
28	Waste or substrate for metal hyperaccumulating plants — The potential of phytomining on waste incineration bottom ash. <i>Science of the Total Environment</i> , 2017, 575, 910-918.	8.0	33
29	Diffusive gradients in thin films measurement of sulfur stable isotope variations in labile soil sulfate. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 8333-8341.	3.7	4
30	An axiomatic system for affine spaces in terms of points, lines, and planes. <i>Journal of Geometry</i> , 2016, 107, 207-216.	0.4	2
31	Environmental impact assessment of wood ash utilization in forest road construction and maintenance — A field study. <i>Science of the Total Environment</i> , 2016, 544, 711-721.	8.0	31
32	Phosphorus uptake by <i>Zea mays</i> L. is quantitatively predicted by infinite sink extraction of soil P. <i>Plant and Soil</i> , 2015, 386, 371-383.	3.7	22
33	Arithmetic and Polynomials over Fuzzy Rings. <i>Communications in Algebra</i> , 2015, 43, 1207-1231.	0.6	0
34	Uncertainty Evaluation of the Diffusive Gradients in Thin Films Technique. <i>Environmental Science & Technology</i> , 2015, 49, 1594-1602.	10.0	36
35	High Spatial and Fast Changes of Iron Redox State and Phosphorus Solubility in a Seasonally Flooded Temperate Wetland Soil. <i>Wetlands</i> , 2015, 35, 237-246.	1.5	16
36	O ₂ dynamics in the rhizosphere of young rice plants (<i>Oryza sativa</i> L.) as studied by planar optodes. <i>Plant and Soil</i> , 2015, 390, 279-292.	3.7	65

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37	Role of Plant Genotype and Soil Conditions in Symbiotic Plant-Microbe Interactions for Adaptation of Plants to Cadmium-Polluted Soils. <i>Water, Air, and Soil Pollution</i> , 2015, 226, 1.	2.4	38
38	Numerical Evaluation of Lateral Diffusion Inside Diffusive Gradients in Thin Films Samplers. <i>Environmental Science & Technology</i> , 2015, 49, 6109-6116.	10.0	12
39	Localized Metal Solubilization in the Rhizosphere of <i>Salix smithiana</i> upon Sulfur Application. <i>Environmental Science & Technology</i> , 2015, 49, 4522-4529.	10.0	50
40	Trace element biogeochemistry in the soil-water-plant system of a temperate agricultural soil amended with different biochars. <i>Environmental Science and Pollution Research</i> , 2015, 22, 4513-4526.	5.3	24
41	Growth and Cd accumulation of two halophytes and a non-halophyte grown in a non-saline and a saline soil with different Cd levels. <i>Chemistry and Ecology</i> , 2014, 30, 743-754.	1.6	7
42	Root exudation of phytosiderophores from soil-grown wheat. <i>New Phytologist</i> , 2014, 203, 1161-1174.	7.3	124
43	Developing phosphorus-efficient crop varieties—An interdisciplinary research framework. <i>Field Crops Research</i> , 2014, 162, 87-98.	5.1	68
44	Trace element concentrations in leachates and mustard plant tissue (<i>Sinapis alba</i> L.) after biochar application to temperate soils. <i>Science of the Total Environment</i> , 2014, 481, 498-508.	8.0	56
45	Reprint of “Developing phosphorus-efficient crop varieties—An interdisciplinary research framework” <i>Field Crops Research</i> , 2014, 165, 49-60.	5.1	17
46	Localized Flux Maxima of Arsenic, Lead, and Iron around Root Apices in Flooded Lowland Rice. <i>Environmental Science & Technology</i> , 2014, 48, 8498-8506.	10.0	124
47	Aided phytostabilization using <i>Miscanthus sinensis</i> — <i>giganteus</i> on heavy metal-contaminated soils. <i>Science of the Total Environment</i> , 2014, 479-480, 125-131.	8.0	75
48	Hazardous elements speciation in sandy, alkaline coal mine overburden by using different sequential extraction procedures. <i>Chemical Speciation and Bioavailability</i> , 2014, 26, 85-91.	2.0	1
49	Predictability of the Zn and Cd phytoextraction efficiency of a <i>Salix smithiana</i> clone by DGT and conventional bioavailability assays. <i>Plant and Soil</i> , 2013, 369, 531-541.	3.7	37
50	Determination of Pt, Pd and Rh in <i>Brassica Napus</i> using solid sampling electrothermal vaporization inductively coupled plasma optical emission spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2013, 89, 60-65.	2.9	25
51	Evaluation of a novel tool for sampling root exudates from soil-grown plants compared to conventional techniques. <i>Environmental and Experimental Botany</i> , 2013, 87, 235-247.	4.2	94
52	The role of plant-associated bacteria in the mobilization and phytoextraction of trace elements in contaminated soils. <i>Soil Biology and Biochemistry</i> , 2013, 60, 182-194.	8.8	566
53	A novel flow-injection method for simultaneous measurement of platinum (Pt), palladium (Pd) and rhodium (Rh) in aqueous soil extracts of contaminated soil by ICP-OES. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 354.	3.0	31
54	Expression of zinc and cadmium responsive genes in leaves of willow (<i>Salix caprea</i> L.) genotypes with different accumulation characteristics. <i>Environmental Pollution</i> , 2013, 178, 121-127.	7.5	47

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55	Gel for Simultaneous Chemical Imaging of Anionic and Cationic Solutes Using Diffusive Gradients in Thin Films. <i>Analytical Chemistry</i> , 2013, 85, 12028-12036.	6.5	61
56	Bacterially Induced Weathering of Ultramafic Rock and Its Implications for Phytoextraction. <i>Applied and Environmental Microbiology</i> , 2013, 79, 5094-5103.	3.1	44
57	Sulfur-aided phytoextraction of Cd and Zn by <i>Salix smithiana</i> combined with in situ metal immobilization by gravel sludge and red mud. <i>Environmental Pollution</i> , 2012, 170, 222-231.	7.5	54
58	Ectomycorrhizal impact on Zn accumulation of <i>Populus tremula</i> L. grown in metalliferous soil with increasing levels of Zn concentration. <i>Plant and Soil</i> , 2012, 355, 283-297.	3.7	33
59	High-resolution chemical imaging of labile phosphorus in the rhizosphere of <i>Brassica napus</i> L. cultivars. <i>Environmental and Experimental Botany</i> , 2012, 77, 219-226.	4.2	73
60	Cadmium and Zn availability as affected by pH manipulation and its assessment by soil extraction, DGT and indicator plants. <i>Science of the Total Environment</i> , 2012, 416, 490-500.	8.0	78
61	First observation of diffusion-limited plant root phosphorus uptake from nutrient solution. <i>Plant, Cell and Environment</i> , 2012, 35, 1558-1566.	5.7	41
62	Interactions between accumulation of trace elements and macronutrients in <i>Salix caprea</i> after inoculation with rhizosphere microorganisms. <i>Chemosphere</i> , 2011, 84, 1256-1261.	8.2	66
63	Phosphorus saturation and pH differentially regulate the efficiency of organic acid anion-mediated P solubilization mechanisms in soil. <i>Plant and Soil</i> , 2011, 341, 363-382.	3.7	178
64	Algebraic, tropical, and fuzzy geometry. <i>Beitrage Zur Algebra Und Geometrie</i> , 2011, 52, 431-461.	0.5	8
65	Plant growth and root morphology of <i>Phaseolus vulgaris</i> L. grown in a split-root system is affected by heterogeneity of crude oil pollution and mycorrhizal colonization. <i>Plant and Soil</i> , 2010, 332, 339-355.	3.7	39
66	Mapping of nickel in root cross-sections of the hyperaccumulator plant <i>Berkheya coddii</i> using laser ablation ICP-MS. <i>Environmental and Experimental Botany</i> , 2010, 69, 24-31.	4.2	51
67	Differentiation of metallicolous and non-metallicolous <i>Salix caprea</i> populations based on phenotypic characteristics and nuclear microsatellite (SSR) markers. <i>Plant, Cell and Environment</i> , 2010, 33, 1641-1655.	5.7	32
68	Disposal of Coal Combustion Residues in Terrestrial Systems: Contamination and Risk Management. <i>Journal of Environmental Quality</i> , 2010, 39, 761-775.	2.0	37
69	In-situ sampling of soil pore water: evaluation of linear-type microdialysis probes and suction cups at varied moisture contents. <i>Environmental Chemistry</i> , 2010, 7, 123.	1.5	26
70	Interactive effects of organic acids in the rhizosphere. <i>Soil Biology and Biochemistry</i> , 2009, 41, 449-457.	8.8	149
71	Rhizosphere processes and management in plant-assisted bioremediation (phytoremediation) of soils. <i>Plant and Soil</i> , 2009, 321, 385-408.	3.7	512
72	A Lipschitz condition for the width function of convex bodies in arbitrary Minkowski spaces. <i>Applied Mathematics Letters</i> , 2009, 22, 142-145.	2.7	1

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73	Zinc accumulation potential and toxicity threshold determined for a metal-accumulating <i>Populus canescens</i> clone in a dose-response study. <i>Environmental Pollution</i> , 2009, 157, 2871-2877.	7.5	25
74	Media formulation influences in vitro ectomycorrhizal synthesis on the European aspen <i>Populus tremula</i> L.. <i>Mycorrhiza</i> , 2008, 18, 297-307.	2.8	14
75	Environmental risks of farmed and barren alkaline coal ash landfills in Tuzla, Bosnia and Herzegovina. <i>Environmental Pollution</i> , 2008, 153, 677-686.	7.5	48
76	Hydroponic screening for metal resistance and accumulation of cadmium and zinc in twenty clones of willows and poplars. <i>Environmental Pollution</i> , 2007, 148, 155-165.	7.5	210
77	Cadmium and zinc accumulation in willow and poplar species grown on polluted soils. <i>Journal of Plant Nutrition and Soil Science</i> , 2007, 170, 265-272.	1.9	80
78	Phytoextraction of Cd and Zn from agricultural soils by <i>Salix</i> ssp. and intercropping of <i>Salix caprea</i> and <i>Arabidopsis halleri</i> . <i>Plant and Soil</i> , 2007, 298, 255-264.	3.7	125
79	Plant and fertiliser effects on rhizodegradation of crude oil in two soils with different nutrient status. <i>Plant and Soil</i> , 2007, 300, 117-126.	3.7	25
80	Comparison of methods for measuring metal desorption from soils for parameterizing rhizosphere models. <i>European Journal of Soil Science</i> , 2006, 57, 38-46.	3.9	2
81	Characterization of Ni-tolerant methylobacteria associated with the hyperaccumulating plant <i>Thlaspi goesingense</i> and description of <i>Methylobacterium goesingense</i> sp. nov.. <i>Systematic and Applied Microbiology</i> , 2006, 29, 634-644.	2.8	81
82	Root morphology of <i>Thlaspi goesingense</i> grown on a serpentine soil. <i>Journal of Plant Nutrition and Soil Science</i> , 2005, 168, 138-144.	1.9	18
83	Rhizosphere geometry and heterogeneity arising from root-mediated physical and chemical processes. <i>New Phytologist</i> , 2005, 168, 293-303.	7.3	480
84	Symmetrization of Closure Operators and Visibility. <i>Annals of Combinatorics</i> , 2005, 9, 431-450.	0.6	7
85	Changes of Ni biogeochemistry in the rhizosphere of the hyperaccumulator <i>Thlaspi goesingense</i> . <i>Plant and Soil</i> , 2005, 271, 205-218.	3.7	96
86	Novel micro-suction-cup design for sampling soil solution at defined distances from roots. <i>Journal of Plant Nutrition and Soil Science</i> , 2005, 168, 386-391.	1.9	24
87	Root and Rhizosphere Processes in Metal Hyperaccumulation and Phytoremediation Technology. , 2004, , 313-344.		14
88	Bacterial Communities Associated with Flowering Plants of the Ni Hyperaccumulator <i>Thlaspi goesingense</i> . <i>Applied and Environmental Microbiology</i> , 2004, 70, 2667-2677.	3.1	477
89	Immobilization of heavy metals in soils by the application of bauxite residues: pot experiments under field conditions. <i>Journal of Plant Nutrition and Soil Science</i> , 2004, 167, 54-59.	1.9	57
90	Microtome sectioning causes artifacts in rhizobox experiments. <i>Plant and Soil</i> , 2003, 256, 455-462.	3.7	22

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91	Title is missing!. Plant and Soil, 2003, 249, 83-96.	3.7	164
92	Rhizosphere Characteristics of the Arsenic Hyperaccumulator <i>Pteris vittata</i> L. and Monitoring of Phytoremoval Efficiency. Environmental Science & Technology, 2003, 37, 5008-5014.	10.0	200
93	Chemical changes in the rhizosphere of metal hyperaccumulator and excluder <i>Thlaspi</i> species. Journal of Plant Nutrition and Soil Science, 2003, 166, 579-584.	1.9	58
94	Effects of different freezing methods on estimates of soil microbial biomass N by fumigation-extraction. Journal of Plant Nutrition and Soil Science, 2003, 166, 326-327.	1.9	4
95	Immobilization of heavy metals in soils using inorganic amendments in a greenhouse study. Journal of Plant Nutrition and Soil Science, 2003, 166, 191-196.	1.9	92
96	Arsenic in field-collected soil solutions and extracts of contaminated soils and its implication to soil standards. Journal of Plant Nutrition and Soil Science, 2002, 165, 221.	1.9	87
97	The suitability of pde-solvers in rhizosphere modeling, exemplified by three mechanistic rhizosphere models. Journal of Plant Nutrition and Soil Science, 2002, 165, 713-718.	1.9	10
98	Arsenic transformations in the soil-rhizosphere-plant system: fundamentals and potential application to phytoremediation. Journal of Biotechnology, 2002, 99, 259-278.	3.8	650
99	Phytoextraction of heavy metal contaminated soils with <i>Thlaspi goesingense</i> and <i>Amaranthus hybridus</i> : Rhizosphere manipulation using EDTA and ammonium sulfate. Journal of Plant Nutrition and Soil Science, 2001, 164, 615-621.	1.9	88
100	Arsenic fractionation in soils using an improved sequential extraction procedure. Analytica Chimica Acta, 2001, 436, 309-323.	5.4	1,117
101	Novel rhizobox design to assess rhizosphere characteristics at high spatial resolution. Plant and Soil, 2001, 237, 37-45.	3.7	101
102	Simultaneous multi-element analysis of trace elements in soil samples by means of high-resolution inductively coupled plasma sector field mass spectrometry (SF-ICP-MS). Fresenius' Journal of Analytical Chemistry, 2000, 368, 256-262.	1.5	12
103	NICKEL AND COPPER SORPTION IN ACID FOREST SOILS. Soil Science, 2000, 165, 463-472.	0.9	32
104	Dependency of Phytoavailability of Metals on Indigenous and Induced Rhizosphere Processes. , 2000, , .		14
105	Arsenic adsorption by soils and iron-oxide-coated sand: kinetics and reversibility. Journal of Plant Nutrition and Soil Science, 1999, 162, 451-456.	1.9	66
106	Estimating dissolved organic carbon in natural waters by UV absorbance (254 nm). Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science, 1996, 159, 605-607.	0.4	82
107	Seasonal and spatial variation of extractable trace metal fractions in topsoils under mixed forest. Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science, 1996, 159, 333-336.	0.4	2
108	FLUORINE SPECIATION AND MOBILITY IN F-CONTAMINATED SOILS. Soil Science, 1992, 153, 357-364.	0.9	184

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109	Projective equivalence of matroids with coefficients. Journal of Combinatorial Theory - Series A, 1991, 57, 15-45.	0.8	10
110	Grassmann-Plücker relations and matroids with coefficients. Advances in Mathematics, 1991, 86, 68-110.	1.1	49
111	Matroidizing set systems: a new approach to matroid theory. Applied Mathematics Letters, 1990, 3, 29-32.	2.7	2
112	Phytoremediation: A Plant-Microbe-Based Remediation System. Agronomy, 0, , 457-508.	0.2	44