Markus Puschenreiter

List of Publications by Year
in descending order

98 papers	5,353 citations	81900 39 h-index	85541 71 g-index
99 all docs	99 docs citations	99 times ranked	5812 citing authors

#	Article	IF	Citations
1	The role of plant-associated bacteria in the mobilization and phytoextraction of trace elements in contaminated soils. Soil Biology and Biochemistry, 2013, 60, 182-194.	8.8	566
2	Bacterial Communities Associated with Flowering Plants of the Ni Hyperaccumulator Thlaspi goesingense. Applied and Environmental Microbiology, 2004, 70, 2667-2677.	3.1	477
3	Rhizosphere bacteria affect growth and metal uptake of heavy metal accumulating willows. Plant and Soil, 2008, 304, 35-44.	3.7	247
4	Agronomic Practices for Improving Gentle Remediation of Trace Element-Contaminated Soils. International Journal of Phytoremediation, 2015, 17, 1005-1037.	3.1	197
5	Interactive effects of organic acids in the rhizosphere. Soil Biology and Biochemistry, 2009, 41, 449-457.	8.8	149
6	Microbe and plant assisted-remediation of organic xenobiotics and its enhancement by genetically modified organisms and recombinant technology: A review. Science of the Total Environment, 2018, 628-629, 1582-1599.	8.0	144
7	Phytoextraction of Cd and Zn from agricultural soils by Salix ssp. and intercropping of Salix caprea and Arabidopsis halleri. Plant and Soil, 2007, 298, 255-264.	3.7	125
8	Root exudation of phytosiderophores from soilâ€grown wheat. New Phytologist, 2014, 203, 1161-1174.	7.3	124
9	Root anatomy and element distribution vary between two Salix caprea isolates with different Cd accumulation capacities. Environmental Pollution, 2012, 163, 117-126.	7.5	121
10	Novel rhizobox design to assess rhizosphere characteristics at high spatial resolution. Plant and Soil, 2001, 237, 37-45.	3.7	101
11	Effect of nano zero-valent iron application on As, Cd, Pb, and Zn availability in the rhizosphere of metal(loid) contaminated soils. Chemosphere, 2018, 200, 217-226.	8.2	99
12	Changes of Ni biogeochemistry in the rhizosphere of the hyperaccumulator Thlaspi goesingense. Plant and Soil, 2005, 271, 205-218.	3.7	96
13	Evaluation of a novel tool for sampling root exudates from soil-grown plants compared to conventional techniques. Environmental and Experimental Botany, 2013, 87, 235-247.	4.2	94
14	Effects of biochar amendment on root traits and contaminant availability of maize plants in a copper and arsenic impacted soil. Plant and Soil, 2014, 379, 351-360.	3.7	93
15	Assessment of Methods for Determining Bioavailability of Trace Elements in Soils: A Review. Pedosphere, 2017, 27, 389-406.	4.0	90
16	Phytoextraction of heavy metal contaminated soils withThlaspi goesingense and Amaranthus hybridus: Rhizosphere manipulation using EDTA and ammonium sulfate. Journal of Plant Nutrition and Soil Science, 2001, 164, 615-621.	1.9	88
17	Rhizoremediation of petroleum hydrocarbon-contaminated soils: Improvement opportunities and field applications. Environmental and Experimental Botany, 2018, 147, 202-219.	4.2	88
18	Availability and transfer to grain of As, Cd, Cu, Ni, Pb and Zn in a barley agri-system: Impact of biochar, organic and mineral fertilizers. Agriculture, Ecosystems and Environment, 2016, 219, 171-178.	5.3	84

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19	Characterization of Ni-tolerant methylobacteria associated with the hyperaccumulating plant Thlaspi goesingense and description of Methylobacterium goesingense sp. nov.. Systematic and Applied Microbiology, 2006, 29, 634-644.	2.8	81
20	Cadmium and Zn availability as affected by pH manipulation and its assessment by soil extraction, DGT and indicator plants. Science of the Total Environment, 2012, 416, 490-500.	8.0	78
21	Developing decision support tools for the selection of â€œgentleâ€• remediation approaches. Science of the Total Environment, 2009, 407, 6132-6142.	8.0	77
22	Aided phytostabilization using Miscanthus sinensisÃ—giganteus on heavy metal-contaminated soils. Science of the Total Environment, 2014, 479-480, 125-131.	8.0	75
23	High-resolution chemical imaging of labile phosphorus in the rhizosphere of Brassica napus L. cultivars. Environmental and Experimental Botany, 2012, 77, 219-226.	4.2	73
24	Time and substrate dependent exudation of carboxylates by Lupinus albus L. and Brassica napus L.. Plant Physiology and Biochemistry, 2011, 49, 1272-1278.	5.8	68
25	Interactions between accumulation of trace elements and macronutrients in Salix caprea after inoculation with rhizosphere microorganisms. Chemosphere, 2011, 84, 1256-1261.	8.2	66
26	LCâ€"MS analysis of low molecular weight organic acids derived from root exudation. Analytical and Bioanalytical Chemistry, 2011, 400, 2587-2596.	3.7	63
27	Developing Sustainable Agromining Systems in Agricultural Ultramafic Soils for Nickel Recovery. Frontiers in Environmental Science, 2018, 6, .	3.3	63
28	Effects of Biochars and Compost Mixtures and Inorganic Additives on Immobilisation of Heavy Metals in Contaminated Soils. Water, Air, and Soil Pollution, 2015, 226, 1.	2.4	60
29	Diversity and structure of ectomycorrhizal and co-associated fungal communities in a serpentine soil. Mycorrhiza, 2008, 18, 339-354.	2.8	59
30	Chemical changes in the rhizosphere of metal hyperaccumulator and excluderThlaspi species. Journal of Plant Nutrition and Soil Science, 2003, 166, 579-584.	1.9	58
31	Sulfur-aided phytoextraction of Cd and Zn by Salix smithiana combined with in situ metal immobilization by gravel sludge and red mud. Environmental Pollution, 2012, 170, 222-231.	7.5	54
32	Long-term soil accumulation of potentially toxic elements and selected organic pollutants through application of recycled phosphorus fertilizers for organic farming conditions. Nutrient Cycling in Agroecosystems, 2018, 110, 427-449.	2.2	51
33	Localized Metal Solubilization in the Rhizosphere of <i>Salix smithiana</i> upon Sulfur Application. Environmental Science & Technology, 2015, 49, 4522-4529.	10.0	50
34	Selecting chemical and ecotoxicological test batteries for risk assessment of trace element-contaminated soils (phyto)managed by gentle remediation options (GRO). Science of the Total Environment, 2014, 496, 510-522.	8.0	49
35	Environmental risks of farmed and barren alkaline coal ash landfills in Tuzla, Bosnia and Herzegovina. Environmental Pollution, 2008, 153, 677-686.	7.5	48
36	Expression of zinc and cadmium responsive genes in leaves of willow (Salix caprea L.) genotypes with different accumulation characteristics. Environmental Pollution, 2013, 178, 121-127.	7.5	47

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37	Assessing phytotoxicity of trace element-contaminated soils phytomanaged with gentle remediation options at ten European field trials. Science of the Total Environment, 2017, 599-600, 1388-1398.	8.0	45
38	Bacterially Induced Weathering of Ultramafic Rock and Its Implications for Phytoextraction. Applied and Environmental Microbiology, 2013, 79, 5094-5103.	3.1	44
39	Accumulation of Cadmium, Zinc, and Copper by<i>Helianthus Annuus</i>L.: Impact on Plant Growth and Uptake of Nutritional Elements. International Journal of Phytoremediation, 2012, 14, 320-334.	3.1	43
40	Differentiation between physical and chemical effects of oil presence in freshly spiked soil during rhizoremediation trial. Environmental Science and Pollution Research, 2019, 26, 18451-18464.	5.3	43
41	Nickel phytomining from industrial wastes: Growing nickel hyperaccumulator plants on galvanic sludges. Journal of Environmental Management, 2020, 254, 109798.	7.8	42
42	Plant growth and root morphology of Phaseolus vulgaris L. grown in a split-root system is affected by heterogeneity of crude oil pollution and mycorrhizal colonization. Plant and Soil, 2010, 332, 339-355.	3.7	39
43	Degradation of polycyclic aromatic hydrocarbons in a mixed contaminated soil supported by phytostabilisation, organic and inorganic soil additives. Science of the Total Environment, 2018, 628-629, 1287-1295.	8.0	39
44	Hydrophilic interaction LC combined with electrospray MS for highly sensitive analysis of underivatized amino acids in rhizosphere research. Journal of Separation Science, 2010, 33, 911-922.	2.5	38
45	Iron plaque formed under aerobic conditions efficiently immobilizes arsenic in Lupinus albus L roots. Environmental Pollution, 2016, 216, 215-222.	7.5	37
46	Phytosiderophore-induced mobilization and uptake of Cd, Cu, Fe, Ni, Pb and Zn by wheat plants grown on metal-enriched soils. Environmental and Experimental Botany, 2017, 138, 67-76.	4.2	37
47	Complexation of metals by phytosiderophores revealed by CEâ€ESIâ€MS and CEâ€ICPâ€MS. Electrophoresis, 2010, 31, 1201-1207.	2.4	36
48	Developing Effective Decision Support for the Application of â€œGentleâ€•Remediation Options: The GREENLAND Project. Remediation, 2015, 25, 101-114.	2.4	36
49	Enzyme activity and microbial community structure in the rhizosphere of two maize lines differing in N use efficiency. Plant and Soil, 2015, 387, 413-424.	3.7	36
50	Integrating chemical imaging of cationic trace metal solutes and pH into a single hydrogel layer. Analytica Chimica Acta, 2017, 950, 88-97.	5.4	35
51	Waste or substrate for metal hyperaccumulating plants â€" The potential of phytomining on waste incineration bottom ash. Science of the Total Environment, 2017, 575, 910-918.	8.0	33
52	Differentiation of metallicolous and nonâ€•metallicolous <i>Salix caprea</i> populations based on phenotypic characteristics and nuclear microsatellite (SSR) markers. Plant, Cell and Environment, 2010, 33, 1641-1655.	5.7	32
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. Journal of Analytical Atomic Spectrometry, 2013, 28, 354.	3.0	31
54	A nickel phytomining field trial using Odontarrhena chalcidica and Noccaea goesingensis on an Austrian serpentine soil. Journal of Environmental Management, 2019, 242, 522-528.	7.8	31

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55	Comparative Genomics of Microbacterium Species to Reveal Diversity, Potential for Secondary Metabolites and Heavy Metal Resistance. Frontiers in Microbiology, 2020, 11, 1869.	3.5	29
56	Immobilisation of metals in a contaminated soil with biochar-compost mixtures and inorganic additives: 2-year greenhouse and field experiments. Environmental Science and Pollution Research, 2018, 25, 2506-2516.	5.3	28
57	Analysis of ironâ€phytosiderophore complexes in soil related samples: LCâ€ESIâ€MS/MS versus CEâ€MS. Electrophoresis, 2012, 33, 726-733.	2.4	27
58	Elucidating rhizosphere processes by mass spectrometry â€“ A review. Analytica Chimica Acta, 2017, 956, 1-13.	5.4	26
59	Plant and fertiliser effects on rhizodegradation of crude oil in two soils with different nutrient status. Plant and Soil, 2007, 300, 117-126.	3.7	25
60	Determination of Pt, Pd and Rh in Brassica Napus using solid sampling electrothermal vaporization inductively coupled plasma optical emission spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 89, 60-65.	2.9	25
61	Assessment of trace element phytoavailability in compost amended soils using different methodologies. Journal of Soils and Sediments, 2017, 17, 1251-1261.	3.0	25
62	Arsenic redox transformations and cycling in the rhizosphere of Pteris vittata and Pteris quadriaurita. Environmental and Experimental Botany, 2020, 177, 104122.	4.2	25
63	Novel micro-suction-cup design for sampling soil solution at defined distances from roots. Journal of Plant Nutrition and Soil Science, 2005, 168, 386-391.	1.9	24
64	Root foraging and avoidance in hyperaccumulator and excluder plants: a rhizotron experiment. Plant and Soil, 2020, 450, 287-302.	3.7	22
65	Heavy metal contents, mobility and origin in agricultural topsoils of the GalÃ¡pagos Islands. Chemosphere, 2021, 272, 129821.	8.2	22
66	Endophytes and Rhizosphere Bacteria of Plants Growing in Heavy Metal-Containing Soils. Soil Biology, 2008, , 317-332.	0.8	21
67	Speciation analysis of orthophosphate and <i>myo</i>â€inositol hexakisphosphate in soilâ€and plantâ€related samples by highâ€performance ion chromatography combined with inductively coupled plasma mass spectrometry. Journal of Separation Science, 2014, 37, 1711-1719.	2.5	21
68	Microbial decomposition of 13C- labeled phytosiderophores in the rhizosphere of wheat: Mineralization dynamics and key microbial groups involved. Soil Biology and Biochemistry, 2016, 98, 196-207.	8.8	20
69	Effect of Lupinus albus L. root activities on As and Cu mobility after addition of iron-based soil amendments. Chemosphere, 2017, 182, 373-381.	8.2	20
70	Root morphology ofThlaspi goesingenseHÃ¡lÃ¡csy grown on a serpentine soil. Journal of Plant Nutrition and Soil Science, 2005, 168, 138-144.	1.9	18
71	Accurate LCâ€ESIâ€MS/MS quantification of 2â€²â€deoxymugineic acid in soil and root related samples employing porous graphitic carbon as stationary phase and a ¹³C₄â€labeled internal standard. Electrophoresis, 2014, 35, 1375-1385.	2.4	16
72	Complete genome sequence of the heavy metal resistant bacterium Agromyces aureus AR33T and comparison with related Actinobacteria. Standards in Genomic Sciences, 2017, 12, 2.	1.5	15

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73	Root exudation of coumarins from soil-grown Arabidopsis thaliana in response to iron deficiency. Rhizosphere, 2021, 17, 100296.	3.0	15
74	Free metal ion availability is a major factor for tolerance and growth in Physcomitrella patens. Environmental and Experimental Botany, 2015, 110, 1-10.	4.2	13
75	Element Case Studies in the Temperate/Mediterranean Regions of Europe: Nickel. Mineral Resource Reviews, 2021, , 341-363.	1.5	13
76	Aluminiumâ€“phosphate interactions in the rhizosphere of two bean species: <i>Phaseolus lunatus</i> L. and <i>Phaseolus vulgaris</i> L. Journal of the Science of Food and Agriculture, 2013, 93, 3891-3896.	3.5	12
77	Effect of bacterial inoculants on phytomining of metals from waste incineration bottom ash. Waste Management, 2018, 73, 351-359.	7.4	12
78	Investigations of microbial degradation of polycyclic aromatic hydrocarbons based on 13C-labeled phenanthrene in a soil co-contaminated with trace elements using a plant assisted approach. Environmental Science and Pollution Research, 2018, 25, 6364-6377.	5.3	11
79	Metal accumulation and rhizosphere characteristics of Noccaea rotundifolia ssp. cepaeifolia. Environmental Pollution, 2020, 266, 115088.	7.5	10
80	Slow-Release Zeolite-Bound Zinc and Copper Fertilizers Affect Cadmium Concentration in Wheat and Spinach. Communications in Soil Science and Plant Analysis, 2003, 34, 31-40.	1.4	9
81	Changes in topsoil characteristics with climate and island age in the agricultural zones of the GalÃ¡pagos. Geoderma, 2020, 376, 114534.	5.1	8
82	Millimetre-resolution mapping of citrate exuded from soil-grown roots using a novel, low-invasive sampling technique. Journal of Experimental Botany, 2021, 72, 3513-3525.	4.8	8
83	Trace elements bioavailability to Triticum aestivum and Dendrobaena veneta in a multielement-contaminated agricultural soil amended with drinking water treatment residues. Journal of Soils and Sediments, 2018, 18, 2259-2270.	3.0	7
84	Does the exudation of coumarins from Fe-deficient, soil-grown Brassicaceae species play a significant role in plant Fe nutrition?. Rhizosphere, 2021, 19, 100410.	3.0	7
85	Fertilization regimes affecting nickel phytomining efficiency on a serpentine soil in the temperate climate zone. International Journal of Phytoremediation, 2021, 23, 407-414.	3.1	6
86	Comparison of four nickel hyperaccumulator species in the temperate climate zone of Central Europe. Journal of Geochemical Exploration, 2022, 234, 106933.	3.2	6
87	Phytomanagement with grassy species, compost and dolomitic limestone rehabilitates a meadow at a wood preservation site. Ecological Engineering, 2021, 160, 106132.	3.6	4
88	Phytoextraction of Cadmium: Feasibility in Field Applications and Potential Use of Harvested Biomass. Mineral Resource Reviews, 2018, , 205-219.	1.5	3
89	Partitioning of heavy metals in different particle-size fractions of soils from former mining and smelting locations in Austria. Eurasian Journal of Soil Science, 2021, 10, 123-131.	0.6	3
90	Editorial: Exploring Plant Rhizosphere, Phyllosphere and Endosphere Microbial Communities to Improve the Management of Polluted Sites. Frontiers in Microbiology, 2021, 12, 763566.	3.5	3

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91	Selective Diffusive Gradients in Thin Films (DGT) for the Simultaneous Assessment of Labile Sr and Pb Concentrations and Isotope Ratios in Soils. Analytical Chemistry, 2022, 94, 6338-6346.	6.5	3
92	In situ spatiotemporal solute imaging of metal corrosion on the example of magnesium. Analytica Chimica Acta, 2022, 1212, 339910.	5.4	3
93	Transcriptome Response of Metallicolous and a Non-Metallicolous Ecotypes of Noccaea goesingensis to Nickel Excess. Plants, 2020, 9, 951.	3.5	2
94	Effect of Chelant-Based Soil Washing and Post-Treatment on Pb, Cd, and Zn Bioavailability and Plant Uptake. Water, Air, and Soil Pollution, 2021, 232, 405.	2.4	2
95	Diffusive gradients in thin films predicts crop response better than calcium-acetate-lactate extraction. Nutrient Cycling in Agroecosystems, 2021, 121, 227-240.	2.2	2
96	Agromining from Secondary Resources: Recovery of Nickel and Other Valuable Elements from Waste Materials. Mineral Resource Reviews, 2021, , 299-321.	1.5	1
97	Wheat yield prediction by zero sink and equilibrium-type soil phosphorus tests. Pedosphere, 2022, 32, 543-554.	4.0	1
98	Heavy metal contents in organic baby-food-carrots. , 2017, , .		0