Ute KrÃ¤mer

List of Publications by Year
in descending order

104 papers	15,593 citations	36203 51 h-index	30010 103 g-index
113 all docs	113 docs citations	113 times ranked	12527 citing authors

#	Article	IF	Citations
1	A long way ahead: understanding and engineering plant metal accumulation. Trends in Plant Science, 2002, 7, 309-315.	4.3	1,083
2	Metal Hyperaccumulation in Plants. Annual Review of Plant Biology, 2010, 61, 517-534.	8.6	1,038
3	Free histidine as a metal chelator in plants that accumulate nickel. Nature, 1996, 379, 635-638.	13.7	878
4	Evolution of metal hyperaccumulation required cis-regulatory changes and triplication of HMA4. Nature, 2008, 453, 391-395.	13.7	739
5	Relationship between nucleosome positioning and DNA methylation. Nature, 2010, 466, 388-392.	13.7	625
6	Mobilization of vacuolar iron by AtNRAMP3 and AtNRAMP4 is essential for seed germination on low iron. EMBO Journal, 2005, 24, 4041-4051.	3.5	562
7	Crossâ€species microarray transcript profiling reveals high constitutive expression of metal homeostasis genes in shoots of the zinc hyperaccumulator <i>Arabidopsis halleri</i>. Plant Journal, 2004, 37, 251-268.	2.8	500
8	Transition metal transport. FEBS Letters, 2007, 581, 2263-2272.	1.3	481
9	Zinc biofortification of cereals: problems and solutions. Trends in Plant Science, 2008, 13, 464-473.	4.3	446
10	Subcellular Localization and Speciation of Nickel in Hyperaccumulator and Non-Accumulator ThlaspiSpecies. Plant Physiology, 2000, 122, 1343-1354.	2.3	431
11	Phytoremediation: novel approaches to cleaning up polluted soils. Current Opinion in Biotechnology, 2005, 16, 133-141.	3.3	426
12	Root-Specific Reduction of Cytokinin Causes Enhanced Root Growth, Drought Tolerance, and Leaf Mineral Enrichment in <i>Arabidopsis</i> and Tobacco Â Â. Plant Cell, 2011, 22, 3905-3920.	3.1	417
13	Zinc-Dependent Global Transcriptional Control, Transcriptional Deregulation, and Higher Gene Copy Number for Genes in Metal Homeostasis of the Hyperaccumulator Arabidopsis halleri. Plant Physiology, 2006, 142, 148-167.	2.3	405
14	The zinc homeostasis network of land plants. Biochimica Et Biophysica Acta - Molecular Cell Research, 2012, 1823, 1553-1567.	1.9	404
15	The Arabidopsis metal tolerance protein AtMTP3 maintains metal homeostasis by mediating Zn exclusion from the shoot under Fe deficiency and Zn oversupply. Plant Journal, 2006, 46, 861-879.	2.8	377
16	Export of Vacuolar Manganese by AtNRAMP3 and AtNRAMP4 Is Required for Optimal Photosynthesis and Growth under Manganese Deficiency. Plant Physiology, 2010, 152, 1986-1999.	2.3	299
17	Transcriptome Sequencing Identifies <i>SPL7</i>-Regulated Copper Acquisition Genes <i>FRO4</i>/<i>FRO5</i> and the Copper Dependence of Iron Homeostasis in <i>Arabidopsis</i>. Plant Cell, 2012, 24, 738-761.	3.1	286
18	Small cationic antimicrobial peptides delocalize peripheral membrane proteins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1409-18.	3.3	283

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19	Vacuolar Nicotianamine Has Critical and Distinct Roles under Iron Deficiency and for Zinc Sequestration in <i>Arabidopsis</i>. Plant Cell, 2012, 24, 724-737.	3.1	277
20	Two genes encodingArabidopsis halleriMTP1 metal transport proteins co-segregate with zinc tolerance and account for highMTP1transcript levels. Plant Journal, 2004, 39, 425-439.	2.8	274
21	Arabidopsis thalianaMTP1 is a Zn transporter in the vacuolar membrane which mediates Zn detoxification and drives leaf Zn accumulation. FEBS Letters, 2005, 579, 4165-4174.	1.3	260
22	The Role of Free Histidine in Xylem Loading of Nickel inAlyssum lesbiacum and Brassica juncea Â. Plant Physiology, 2003, 131, 716-724.	2.3	255
23	The Sulfate Transporter SST1 Is Crucial for Symbiotic Nitrogen Fixation in Lotus japonicus Root Nodules. Plant Cell, 2005, 17, 1625-1636.	3.1	227
24	The use of transgenic plants in the bioremediation of soils contaminated with trace elements. Applied Microbiology and Biotechnology, 2001, 55, 661-672.	1.7	216
25	Elevated Nicotianamine Levels in <i>Arabidopsis halleri</i> Roots Play a Key Role in Zinc Hyperaccumulation. Plant Cell, 2012, 24, 708-723.	3.1	209
26	The Role of Metal Transport and Tolerance in Nickel Hyperaccumulation by Thlaspi goesingense Halacsy. Plant Physiology, 1997, 115, 1641-1650.	2.3	201
27	Free Radicals and Reactive Oxygen Species as Mediators of Heavy Metal Toxicity in Plants. , 1999, , 73-97.		199
28	Integrative functional genomics of salt acclimatization in the model legume <i>Lotus japonicus</i>. Plant Journal, 2008, 53, 973-987.	2.8	199
29	Sequencing of the genus Arabidopsis identifies a complex history of nonbifurcating speciation and abundant trans-specific polymorphism. Nature Genetics, 2016, 48, 1077-1082.	9.4	198
30	A Comparative Inventory of Metal Transporters in the Green Alga Chlamydomonas reinhardtii and the Red Alga Cyanidioschizon merolae. Plant Physiology, 2005, 137, 428-446.	2.3	157
31	Molecular Dissection of the Role of Histidine in Nickel Hyperaccumulation in Thlaspi goesingense(HÃ¡lÃ¡csy). Plant Physiology, 1999, 121, 1117-1126.	2.3	155
32	Relationships between soil and leaf mineral composition are elementâ€specific, environmentâ€dependent and geographically structured in the emerging model <i>Arabidopsis halleri</i>. New Phytologist, 2017, 213, 1274-1286.	3.5	139
33	Micro-PIXE as a technique for studying nickel localization in leaves of the hyperaccumulator plant Alyssum lesbiacum. Nuclear Instruments & Methods in Physics Research B, 1997, 130, 346-350.	0.6	126
34	Comparative ionomics and metabolomics in extremophile and glycophytic <i>Lotus</i> species under salt stress challenge the metabolic preâ€adaptation hypothesis. Plant, Cell and Environment, 2011, 34, 605-617.	2.8	122
35	Rhizosphere Microbial Community Composition Affects Cadmium and Zinc Uptake by the Metal-Hyperaccumulating Plant Arabidopsis halleri. Applied and Environmental Microbiology, 2015, 81, 2173-2181.	1.4	122
36	Comparative Functional Genomics of Salt Stress in Related Model and Cultivated Plants Identifies and Overcomes Limitations to Translational Genomics. PLoS ONE, 2011, 6, e17094.	1.1	119

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37	Organic Carbon and Reducing Conditions Lead to Cadmium Immobilization by Secondary Fe Mineral Formation in a pH-Neutral Soil. Environmental Science & Technology, 2013, 47, 13430-13439.	4.6	114
38	Fate of Cd during Microbial Fe(III) Mineral Reduction by a Novel and Cd-Tolerant <i>Geobacter</i> Species. Environmental Science & Technology, 2013, 47, 14099-14109.	4.6	113
39	Zinc and cadmium hyperaccumulation act as deterrents towards specialist herbivores and impede the performance of a generalist herbivore. New Phytologist, 2014, 202, 628-639.	3.5	107
40	Circadian clock adjustment to plant iron status depends on chloroplast and phytochrome function. EMBO Journal, 2012, 32, 511-523.	3.5	96
41	Arabidopsis Plastid AMOS1/EGY1 Integrates Abscisic Acid Signaling to Regulate Global Gene Expression Response to Ammonium Stress. Plant Physiology, 2012, 160, 2040-2051.	2.3	92
42	Interference of nickel with copper and iron homeostasis contributes to metal toxicity symptoms in the nickel hyperaccumulator plant <i>Alyssum inflatum</i>. New Phytologist, 2009, 184, 566-580.	3.5	82
43	Zinc in plants: Integrating homeostasis and biofortification. Molecular Plant, 2022, 15, 65-85.	3.9	80
44	MTP1 mops up excess zinc in Arabidopsis cells. Trends in Plant Science, 2005, 10, 313-315.	4.3	78
45	The CTR/COPT-dependent copper uptake and SPL7-dependent copper deficiency responses are required for basal cadmium tolerance in A. thaliana. Metallomics, 2013, 5, 1262.	1.0	78
46	Systemic Upregulation of MTP2- and HMA2-Mediated Zn Partitioning to the Shoot Supplements Local Zn Deficiency Responses. Plant Cell, 2018, 30, 2463-2479.	3.1	78
47	Hard Selective Sweep and Ectopic Gene Conversion in a Gene Cluster Affording Environmental Adaptation. PLoS Genetics, 2013, 9, e1003707.	1.5	77
48	Enhancing the first enzymatic step in the histidine biosynthesis pathway increases the free histidine pool and nickel tolerance inArabidopsis thaliana. FEBS Letters, 2004, 578, 128-134.	1.3	74
49	Metal accumulation in tobacco expressing Arabidopsis halleri metal hyperaccumulation gene depends on external supply. Journal of Experimental Botany, 2010, 61, 3057-3067.	2.4	70
50	Functions and homeostasis of zinc, copper, and nickel in plants. Topics in Current Genetics, 2005, , 215-271.	0.7	63
51	Mother-plant-mediated pumping of zinc into the developing seed. Nature Plants, 2016, 2, 16036.	4.7	62
52	Generation of Seâ€fortified broccoli as functional food: impact of Se fertilization on S metabolism. Plant, Cell and Environment, 2011, 34, 192-207.	2.8	59
53	Heavy metal (hyper)accumulation in leaves of Arabidopsis halleri is accompanied by a reduced performance of herbivores and shifts in leaf glucosinolate and element concentrations. Environmental and Experimental Botany, 2017, 133, 78-86.	2.0	56
54	The <i>Synechocystis</i> Manganese Exporter Mnx Is Essential for Manganese Homeostasis in Cyanobacteria. Plant Physiology, 2017, 173, 1798-1810.	2.3	53

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55	Genome Structure of the Heavy Metal Hyperaccumulator <i>Noccaea caerulescens</i> and Its Stability on Metalliferous and Nonmetalliferous Soils. Plant Physiology, 2015, 169, 674-689.	2.3	51
56	Planting molecular functions in an ecological context with Arabidopsis thaliana. ELife, 2015, 4, .	2.8	50
57	Etiolated Seedling Development Requires Repression of Photomorphogenesis by a Small Cell-Wall-Derived Dark Signal. Current Biology, 2017, 27, 3403-3418.e7.	1.8	49
58	Spatially resolved analysis of variation in barley (<i>Hordeum vulgare</i>) grain micronutrient accumulation. New Phytologist, 2016, 211, 1241-1254.	3.5	46
59	Metal response of transgenic tomato plantsexpressing P_{1B}â€ATPase. Physiologia Plantarum, 2012, 145, 315-331.	2.6	45
60	Amino acid screening based on structural modeling identifies critical residues for the function, ion selectivity and structure of Arabidopsis MTP1. FEBS Journal, 2012, 279, 2339-2356.	2.2	43
61	Convergent evolution in<i>Arabidopsis halleri</i>and<i>Arabidopsis arenosa</i>on calamine metalliferous soils. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180243.	1.8	43
62	Cadmium for all meals - plants with an unusual appetite. New Phytologist, 2000, 145, 1-3.	3.5	40
63	Phytoremediation to phytochelatin â€“ plant trace metal homeostasis. New Phytologist, 2003, 158, 4-6.	3.5	37
64	Metal hyperaccumulation in Brassicaceae mediates defense against herbivores in the field and improves growth. Entomologia Experimentalis Et Applicata, 2015, 157, 3-10.	0.7	37
65	Noninvasive Glucose Measurement by Monitoring of Scattering Coefficient During Oral Glucose Tolerance Tests. Diabetes Technology and Therapeutics, 2000, 2, 211-220.	2.4	33
66	Is there a trade-off between glucosinolate-based organic and inorganic defences in a metal hyperaccumulator in the field?. Oecologia, 2015, 178, 369-378.	0.9	32
67	Both heavy metal-amendment of soil and aphid-infestation increase Cd and Zn concentrations in phloem exudates of a metal-hyperaccumulating plant. Phytochemistry, 2017, 139, 109-117.	1.4	32
68	Between-species differences in gene copy number are enriched among functions critical for adaptive evolution in Arabidopsis halleri. BMC Genomics, 2016, 17, 1034.	1.2	28
69	Antimicrobial Peptides from the Aurein Family Form Ionâ€Selective Pores in <i>Bacillus subtilis</i>. ChemBioChem, 2015, 16, 1101-1108.	1.3	27
70	Metabolome-ionome-biomass interactions. Plant Signaling and Behavior, 2008, 3, 598-600.	1.2	26
71	Characterization of the Histidine-Rich Loop of Arabidopsis Vacuolar Membrane Zinc Transporter AtMTP1 as a Sensor of Zinc Level in the Cytosol. Plant and Cell Physiology, 2015, 56, 510-519.	1.5	26
72	Zinc triggers a complex transcriptional and post-transcriptional regulation of the metal homeostasis gene FRD3 in Arabidopsis relatives. Journal of Experimental Botany, 2015, 66, 3865-3878.	2.4	25

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73	Wounding of Arabidopsis halleri leaves enhances cadmium accumulation that acts as a defense against herbivory. BioMetals, 2015, 28, 521-528.	1.8	25
74	Loss of Zhf and the tightly regulated zinc-uptake system SpZrt1 in<i>Schizosaccharomyces pombe</i>reveals the delicacy of cellular zinc balance. FEMS Yeast Research, 2008, 8, 883-896.	1.1	23
75	Quantitative Trait Loci and Inter-Organ Partitioning for Essential Metal and Toxic Analogue Accumulation in Barley. PLoS ONE, 2016, 11, e0153392.	1.1	22
76	Accumulation of Nickel in Trichomes of a Nickel Hyperaccumulator Plant,<i>Alyssum inflatum</i>. Northeastern Naturalist, 2009, 16, 81-92.	0.1	21
77	Metal hyperaccumulation in the Brassicaceae species Arabidopsis halleri reduces camalexin induction after fungal pathogen attack. Environmental and Experimental Botany, 2018, 153, 120-126.	2.0	21
78	Extracting iron and manganese from bacteria with ionophoresâ€"A mechanism against competitors characterized by increased potency in environments low in micronutrients. Proteomics, 2013, 13, 1358-1370.	1.3	19
79	Rootâ€toâ€shoot iron partitioning in Arabidopsis requires IRONâ€REGULATED TRANSPORTER1 (IRT1) protein but not its iron(II) transport function. Plant Journal, 2021, , .	2.8	18
80	Conceptualizing plant systems evolution. Current Opinion in Plant Biology, 2018, 42, 66-75.	3.5	17
81	Do Arabidopsis <i>Squamosa promoter binding Proteinâ€Like</i> genes act together in plant acclimation to copper or zinc deficiency?. Plant Direct, 2019, 3, e00150.	0.8	17
82	Systemic Potato virus X infection induces defence gene expression and accumulation of Î²-phenylethylamine-alkaloids in potato. Functional Plant Biology, 2006, 33, 593.	1.1	16
83	The dilemma of controlling heavy metal accumulation in plants. New Phytologist, 2009, 181, 3-5.	3.5	15
84	Interactions Between Copper Homeostasis and Metabolism in Plants. Progress in Botany Fortschritte Der Botanik, 2017, , 111-146.	0.1	12
85	The Next Generation of Training for Arabidopsis Researchers: Bioinformatics and Quantitative Biology. Plant Physiology, 2017, 175, 1499-1509.	2.3	11
86	Arabidopsis halleri shows hyperbioindicator behaviour for Pb and leaf Pb accumulation spatially separated from Zn. New Phytologist, 2020, 226, 492-506.	3.5	11
87	Realâ€time wholeâ€plant dynamics of heavy metal transport in <i>Arabidopsis halleri</i> and <i>Arabidopsis thaliana</i> by gammaâ€ray imaging. Plant Direct, 2019, 3, e00131.	0.8	10
88	The Role of Root Exudates in Nickel Hyperaccumulation and Tolerance in Accumulator and Nonaccumulator Species of Thlaspi. , 1999, , .		10
89	<i>Arabidopsis thaliana</i>Zn2+-efflux ATPases HMA2 and HMA4 are required for resistance to the necrotrophic fungus<i>Plectosphaerella cucumerina</i>BMM. Journal of Experimental Botany, 2022, 73, 339-350.	2.4	8
90	Involvement of Arabidopsis Multi-Copper Oxidase-Encoding LACCASE12 in Root-to-Shoot Iron Partitioning: A Novel Example of Copper-Iron Crosstalk. Frontiers in Plant Science, 2021, 12, 688318.	1.7	8

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91	Constitutively enhanced genome integrity maintenance and direct stress mitigation characterize transcriptome of extreme stressâ€adapted <i>Arabidopsis halleri</i>. Plant Journal, 2021, 108, 896-911.	2.8	7
92	A two-step adaptive walk rewires nutrient transport in a challenging edaphic environment. Science Advances, 2022, 8, eabm9385.	4.7	6
93	Effects of 4â€Brâ€A23187 on <i>Bacillus subtilis</i> cells and unilamellar vesicles reveal it to be a potent copper ionophore. Proteomics, 2022, 22, .	1.3	6
94	Translational fidelity and growth of Arabidopsis require stress-sensitive diphthamide biosynthesis. Nature Communications, 2022, 13, .	5.8	6
95	Generation of effective zinc-deficient agar-solidified media allows identification of root morphology changes in response to zinc limitation. Plant Signaling and Behavior, 2020, 15, 1687175.	1.2	5
96	Circadian Life Without Micronutrients: Effects of Altered Micronutrient Supply on Clock Function in Arabidopsis. Methods in Molecular Biology, 2014, 1158, 227-238.	0.4	5
97	Elemental bioimaging of Zn and Cd in leaves of hyperaccumulator Arabidopsis halleri using laser ablation-inductively coupled plasma-mass spectrometry and referencing strategies. Chemosphere, 2022, 305, 135267.	4.2	5
98	Differential Diel Translation of Transcripts With Roles in the Transfer and Utilization of Iron-Sulfur Clusters in Arabidopsis. Frontiers in Plant Science, 2018, 9, 1641.	1.7	4
99	Regulation of acetylation of plant cell wall components is complex and responds to external stimuli. Plant Signaling and Behavior, 2020, 15, 1687185.	1.2	4
100	Chloroplast Ribosomes Interact With the Insertase Alb3 in the Thylakoid Membrane. Frontiers in Plant Science, 2021, 12, 781857.	1.7	4
101	Short Transcript-derived Fragments from the Metal Hyperaccumulator Model Species Arabidopsis halleri. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2005, 60, 172-178.	0.6	2
102	AhHMA4p: AhHMA4 Expression in tobacco increases zn concentration in young leaves. Journal of Biotechnology, 2010, 150, 495-496.	1.9	1
103	PHYTOREMEDIATION: GREEN AND CLEAN. Acta Horticulturae, 1998, , 329-332.	0.1	1
104	Physiology and metabolism. Current Opinion in Plant Biology, 2011, 14, 223-224.	3.5	0