

Ute KrÄömer

List of Publications by Year in descending order

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104
papers

15,593
citations

36303

51
h-index

30087

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. <i>Trends in Plant Science</i> , 2002, 7, 309-315.	8.8	1,083
2	Metal Hyperaccumulation in Plants. <i>Annual Review of Plant Biology</i> , 2010, 61, 517-534.	18.7	1,038
3	Free histidine as a metal chelator in plants that accumulate nickel. <i>Nature</i> , 1996, 379, 635-638.	27.8	878
4	Evolution of metal hyperaccumulation required cis-regulatory changes and triplication of HMA4. <i>Nature</i> , 2008, 453, 391-395.	27.8	739
5	Relationship between nucleosome positioning and DNA methylation. <i>Nature</i> , 2010, 466, 388-392.	27.8	625
6	Mobilization of vacuolar iron by AtNRAMP3 and AtNRAMP4 is essential for seed germination on low iron. <i>EMBO Journal</i> , 2005, 24, 4041-4051.	7.8	562
7	Cross-species microarray transcript profiling reveals high constitutive expression of metal homeostasis genes in shoots of the zinc hyperaccumulator <i>Arabidopsis halleri</i> . <i>Plant Journal</i> , 2004, 37, 251-268.	5.7	500
8	Transition metal transport. <i>FEBS Letters</i> , 2007, 581, 2263-2272.	2.8	481
9	Zinc biofortification of cereals: problems and solutions. <i>Trends in Plant Science</i> , 2008, 13, 464-473.	8.8	446
10	Subcellular Localization and Speciation of Nickel in Hyperaccumulator and Non-Accumulator <i>Thlaspi</i> Species. <i>Plant Physiology</i> , 2000, 122, 1343-1354.	4.8	431
11	Phytoremediation: novel approaches to cleaning up polluted soils. <i>Current Opinion in Biotechnology</i> , 2005, 16, 133-141.	6.6	426
12	Root-Specific Reduction of Cytokinin Causes Enhanced Root Growth, Drought Tolerance, and Leaf Mineral Enrichment in <i>Arabidopsis</i> and Tobacco. <i>Plant Cell</i> , 2011, 22, 3905-3920.	6.6	417
13	Zinc-Dependent Global Transcriptional Control, Transcriptional Deregulation, and Higher Gene Copy Number for Genes in Metal Homeostasis of the Hyperaccumulator <i>Arabidopsis halleri</i> . <i>Plant Physiology</i> , 2006, 142, 148-167.	4.8	405
14	The zinc homeostasis network of land plants. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2012, 1823, 1553-1567.	4.1	404
15	The <i>Arabidopsis</i> metal tolerance protein AtMTP3 maintains metal homeostasis by mediating Zn exclusion from the shoot under Fe deficiency and Zn oversupply. <i>Plant Journal</i> , 2006, 46, 861-879.	5.7	377
16	Export of Vacuolar Manganese by AtNRAMP3 and AtNRAMP4 Is Required for Optimal Photosynthesis and Growth under Manganese Deficiency. <i>Plant Physiology</i> , 2010, 152, 1986-1999.	4.8	299
17	Transcriptome Sequencing Identifies <i>SPL7</i> -Regulated Copper Acquisition Genes <i>FRO4</i> and <i>FRO5</i> and the Copper Dependence of Iron Homeostasis in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2012, 24, 738-761.	6.6	286
18	Small cationic antimicrobial peptides delocalize peripheral membrane proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E1409-18.	7.1	283

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19	Vacuolar Nicotianamine Has Critical and Distinct Roles under Iron Deficiency and for Zinc Sequestration in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2012, 24, 724-737.	6.6	277
20	Two genes encoding <i>Arabidopsis halleri</i> MTP1 metal transport proteins co-segregate with zinc tolerance and account for high MTP1 transcript levels. <i>Plant Journal</i> , 2004, 39, 425-439.	5.7	274
21	<i>Arabidopsis thaliana</i> MTP1 is a Zn transporter in the vacuolar membrane which mediates Zn detoxification and drives leaf Zn accumulation. <i>FEBS Letters</i> , 2005, 579, 4165-4174.	2.8	260
22	The Role of Free Histidine in Xylem Loading of Nickel in <i>Alyssum lesbiacum</i> and <i>Brassica juncea</i> . <i>Plant Physiology</i> , 2003, 131, 716-724.	4.8	255
23	The Sulfate Transporter SST1 Is Crucial for Symbiotic Nitrogen Fixation in <i>Lotus japonicus</i> Root Nodules. <i>Plant Cell</i> , 2005, 17, 1625-1636.	6.6	227
24	The use of transgenic plants in the bioremediation of soils contaminated with trace elements. <i>Applied Microbiology and Biotechnology</i> , 2001, 55, 661-672.	3.6	216
25	Elevated Nicotianamine Levels in <i>Arabidopsis halleri</i> Roots Play a Key Role in Zinc Hyperaccumulation. <i>Plant Cell</i> , 2012, 24, 708-723.	6.6	209
26	The Role of Metal Transport and Tolerance in Nickel Hyperaccumulation by <i>Thlaspi goesingense</i> Halacsy. <i>Plant Physiology</i> , 1997, 115, 1641-1650.	4.8	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> . <i>Plant Journal</i> , 2008, 53, 973-987.	5.7	199
29	Sequencing of the genus <i>Arabidopsis</i> identifies a complex history of nonbifurcating speciation and abundant trans-specific polymorphism. <i>Nature Genetics</i> , 2016, 48, 1077-1082.	21.4	198
30	A Comparative Inventory of Metal Transporters in the Green Alga <i>Chlamydomonas reinhardtii</i> and the Red Alga <i>Cyanidioschyzon merolae</i> . <i>Plant Physiology</i> , 2005, 137, 428-446.	4.8	157
31	Molecular Dissection of the Role of Histidine in Nickel Hyperaccumulation in <i>Thlaspi goesingense</i> (Halacsy). <i>Plant Physiology</i> , 1999, 121, 1117-1126.	4.8	155
32	Relationships between soil and leaf mineral composition are element-specific, environment-dependent and geographically structured in the emerging model <i>Arabidopsis halleri</i> . <i>New Phytologist</i> , 2017, 213, 1274-1286.	7.3	139
33	Micro-PIXE as a technique for studying nickel localization in leaves of the hyperaccumulator plant <i>Alyssum lesbiacum</i> . <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 130, 346-350.	1.4	126
34	Comparative ionomics and metabolomics in extremophile and glycophytic <i>Lotus</i> species under salt stress challenge the metabolic pre-adaptation hypothesis. <i>Plant, Cell and Environment</i> , 2011, 34, 605-617.	5.7	122
35	Rhizosphere Microbial Community Composition Affects Cadmium and Zinc Uptake by the Metal-Hyperaccumulating Plant <i>Arabidopsis halleri</i> . <i>Applied and Environmental Microbiology</i> , 2015, 81, 2173-2181.	3.1	122
36	Comparative Functional Genomics of Salt Stress in Related Model and Cultivated Plants Identifies and Overcomes Limitations to Translational Genomics. <i>PLoS ONE</i> , 2011, 6, e17094.	2.5	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. <i>Environmental Science & Technology</i> , 2013, 47, 13430-13439.	10.0	114
38	Fate of Cd during Microbial Fe(III) Mineral Reduction by a Novel and Cd-Tolerant <i>Geobacter</i> Species. <i>Environmental Science & Technology</i> , 2013, 47, 14099-14109.	10.0	113
39	Zinc and cadmium hyperaccumulation act as deterrents towards specialist herbivores and impede the performance of a generalist herbivore. <i>New Phytologist</i> , 2014, 202, 628-639.	7.3	107
40	Circadian clock adjustment to plant iron status depends on chloroplast and phytochrome function. <i>EMBO Journal</i> , 2012, 32, 511-523.	7.8	96
41	<i>Arabidopsis</i> Plastid AMOS1/EGY1 Integrates Abscisic Acid Signaling to Regulate Global Gene Expression Response to Ammonium Stress. <i>Plant Physiology</i> , 2012, 160, 2040-2051.	4.8	92
42	Interference of nickel with copper and iron homeostasis contributes to metal toxicity symptoms in the nickel hyperaccumulator plant <i>Alyssum inflatum</i> . <i>New Phytologist</i> , 2009, 184, 566-580.	7.3	82
43	Zinc in plants: Integrating homeostasis and biofortification. <i>Molecular Plant</i> , 2022, 15, 65-85.	8.3	80
44	MTP1 mops up excess zinc in <i>Arabidopsis</i> cells. <i>Trends in Plant Science</i> , 2005, 10, 313-315.	8.8	78
45	The CTR/COPT-dependent copper uptake and SPL7-dependent copper deficiency responses are required for basal cadmium tolerance in <i>A. thaliana</i> . <i>Metallomics</i> , 2013, 5, 1262.	2.4	78
46	Systemic Upregulation of MTP2- and HMA2-Mediated Zn Partitioning to the Shoot Supplements Local Zn Deficiency Responses. <i>Plant Cell</i> , 2018, 30, 2463-2479.	6.6	78
47	Hard Selective Sweep and Ectopic Gene Conversion in a Gene Cluster Affording Environmental Adaptation. <i>PLoS Genetics</i> , 2013, 9, e1003707.	3.5	77
48	Enhancing the first enzymatic step in the histidine biosynthesis pathway increases the free histidine pool and nickel tolerance in <i>Arabidopsis thaliana</i> . <i>FEBS Letters</i> , 2004, 578, 128-134.	2.8	74
49	Metal accumulation in tobacco expressing <i>Arabidopsis halleri</i> metal hyperaccumulation gene depends on external supply. <i>Journal of Experimental Botany</i> , 2010, 61, 3057-3067.	4.8	70
50	Functions and homeostasis of zinc, copper, and nickel in plants. <i>Topics in Current Genetics</i> , 2005, , 215-271.	0.7	63
51	Mother-plant-mediated pumping of zinc into the developing seed. <i>Nature Plants</i> , 2016, 2, 16036.	9.3	62
52	Generation of Se-enriched broccoli as functional food: impact of Se fertilization on S metabolism. <i>Plant, Cell and Environment</i> , 2011, 34, 192-207.	5.7	59
53	Heavy metal (hyper)accumulation in leaves of <i>Arabidopsis halleri</i> is accompanied by a reduced performance of herbivores and shifts in leaf glucosinolate and element concentrations. <i>Environmental and Experimental Botany</i> , 2017, 133, 78-86.	4.2	56
54	The <i>Synechocystis</i> Manganese Exporter Mnx Is Essential for Manganese Homeostasis in Cyanobacteria. <i>Plant Physiology</i> , 2017, 173, 1798-1810.	4.8	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. <i>Plant Physiology</i> , 2015, 169, 674-689.	4.8	51
56	Planting molecular functions in an ecological context with <i>Arabidopsis thaliana</i> . <i>ELife</i> , 2015, 4, .	6.0	50
57	Etiolated Seedling Development Requires Repression of Photomorphogenesis by a Small Cell-Wall-Derived Dark Signal. <i>Current Biology</i> , 2017, 27, 3403-3418.e7.	3.9	49
58	Spatially resolved analysis of variation in barley (<i>Hordeum vulgare</i>) grain micronutrient accumulation. <i>New Phytologist</i> , 2016, 211, 1241-1254.	7.3	46
59	Metal response of transgenic tomato plantsexpressing P _{1B} -ATPase. <i>Physiologia Plantarum</i> , 2012, 145, 315-331.	5.2	45
60	Amino acid screening based on structural modeling identifies critical residues for the function, ion selectivity and structure of <i>Arabidopsis</i> MTP1. <i>FEBS Journal</i> , 2012, 279, 2339-2356.	4.7	43
61	Convergent evolution in <i>Arabidopsis halleri</i> and <i>Arabidopsis arenosa</i> on calamine metalliferous soils. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20180243.	4.0	43
62	Cadmium for all meals - plants with an unusual appetite. <i>New Phytologist</i> , 2000, 145, 1-3.	7.3	40
63	Phytoremediation to phytochelatin – plant trace metal homeostasis. <i>New Phytologist</i> , 2003, 158, 4-6.	7.3	37
64	Metal hyperaccumulation in Brassicaceae mediates defense against herbivores in the field and improves growth. <i>Entomologia Experimentalis Et Applicata</i> , 2015, 157, 3-10.	1.4	37
65	Noninvasive Glucose Measurement by Monitoring of Scattering Coefficient During Oral Glucose Tolerance Tests. <i>Diabetes Technology and Therapeutics</i> , 2000, 2, 211-220.	4.4	33
66	Is there a trade-off between glucosinolate-based organic and inorganic defences in a metal hyperaccumulator in the field?. <i>Oecologia</i> , 2015, 178, 369-378.	2.0	32
67	Both heavy metal-amendment of soil and aphid-infestation increase Cd and Zn concentrations in phloem exudates of a metal-hyperaccumulating plant. <i>Phytochemistry</i> , 2017, 139, 109-117.	2.9	32
68	Between-species differences in gene copy number are enriched among functions critical for adaptive evolution in <i>Arabidopsis halleri</i> . <i>BMC Genomics</i> , 2016, 17, 1034.	2.8	28
69	Antimicrobial Peptides from the Aurein Family Form Ion-Selective Pores in <i>Bacillus subtilis</i> . <i>ChemBioChem</i> , 2015, 16, 1101-1108.	2.6	27
70	Metabolome-ionome-biomass interactions. <i>Plant Signaling and Behavior</i> , 2008, 3, 598-600.	2.4	26
71	Characterization of the Histidine-Rich Loop of <i>Arabidopsis</i> Vacuolar Membrane Zinc Transporter AtMTP1 as a Sensor of Zinc Level in the Cytosol. <i>Plant and Cell Physiology</i> , 2015, 56, 510-519.	3.1	26
72	Zinc triggers a complex transcriptional and post-transcriptional regulation of the metal homeostasis gene <i>FRD3</i> in <i>Arabidopsis</i> relatives. <i>Journal of Experimental Botany</i> , 2015, 66, 3865-3878.	4.8	25

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73	Wounding of <i>Arabidopsis halleri</i> leaves enhances cadmium accumulation that acts as a defense against herbivory. <i>BioMetals</i> , 2015, 28, 521-528.	4.1	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. <i>FEMS Yeast Research</i> , 2008, 8, 883-896.	2.3	23
75	Quantitative Trait Loci and Inter-Organ Partitioning for Essential Metal and Toxic Analogue Accumulation in Barley. <i>PLoS ONE</i> , 2016, 11, e0153392.	2.5	22
76	Accumulation of Nickel in Trichomes of a Nickel Hyperaccumulator Plant, <i>Alyssum inflatum</i> . <i>Northeastern Naturalist</i> , 2009, 16, 81-92.	0.3	21
77	Metal hyperaccumulation in the Brassicaceae species <i>Arabidopsis halleri</i> reduces camalexin induction after fungal pathogen attack. <i>Environmental and Experimental Botany</i> , 2018, 153, 120-126.	4.2	21
78	Extracting iron and manganese from bacteria with ionophores: A mechanism against competitors characterized by increased potency in environments low in micronutrients. <i>Proteomics</i> , 2013, 13, 1358-1370.	2.2	19
79	Root-to-shoot iron partitioning in <i>Arabidopsis</i> requires IRON-REGULATED TRANSPORTER1 (IRT1) protein but not its iron(II) transport function. <i>Plant Journal</i> , 2021, , .	5.7	18
80	Conceptualizing plant systems evolution. <i>Current Opinion in Plant Biology</i> , 2018, 42, 66-75.	7.1	17
81	Do <i>Arabidopsis thaliana</i> promoter binding Protein-Like genes act together in plant acclimation to copper or zinc deficiency?. <i>Plant Direct</i> , 2019, 3, e00150.	1.9	17
82	Systemic Potato virus X infection induces defence gene expression and accumulation of β -phenylethylamine-alkaloids in potato. <i>Functional Plant Biology</i> , 2006, 33, 593.	2.1	16
83	The dilemma of controlling heavy metal accumulation in plants. <i>New Phytologist</i> , 2009, 181, 3-5.	7.3	15
84	Interactions Between Copper Homeostasis and Metabolism in Plants. <i>Progress in Botany Fortschritte Der Botanik</i> , 2017, , 111-146.	0.3	12
85	The Next Generation of Training for <i>Arabidopsis</i> Researchers: Bioinformatics and Quantitative Biology. <i>Plant Physiology</i> , 2017, 175, 1499-1509.	4.8	11
86	<i>Arabidopsis halleri</i> shows hyperbioindicator behaviour for Pb and leaf Pb accumulation spatially separated from Zn. <i>New Phytologist</i> , 2020, 226, 492-506.	7.3	11
87	Real-time whole-plant dynamics of heavy metal transport in <i>Arabidopsis halleri</i> and <i>Arabidopsis thaliana</i> by gamma-ray imaging. <i>Plant Direct</i> , 2019, 3, e00131.	1.9	10
88	The Role of Root Exudates in Nickel Hyperaccumulation and Tolerance in Accumulator and Nonaccumulator Species of <i>Thlaspi</i> . , 1999, , .		10
89	<i>Arabidopsis thaliana</i> Zn ²⁺ -efflux ATPases HMA2 and HMA4 are required for resistance to the necrotrophic fungus <i>Plectosphaerella cucumerina</i> BMM. <i>Journal of Experimental Botany</i> , 2022, 73, 339-350.	4.8	8
90	Involvement of <i>Arabidopsis</i> Multi-Copper Oxidase-Encoding LACCASE12 in Root-to-Shoot Iron Partitioning: A Novel Example of Copper-Iron Crosstalk. <i>Frontiers in Plant Science</i> , 2021, 12, 688318.	3.6	8

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91	Constitutively enhanced genome integrity maintenance and direct stress mitigation characterize transcriptome of extreme stress-adapted <i>Arabidopsis halleri</i> . <i>Plant Journal</i> , 2021, 108, 896-911.	5.7	7
92	A two-step adaptive walk rewires nutrient transport in a challenging edaphic environment. <i>Science Advances</i> , 2022, 8, eabm9385.	10.3	6
93	Effects of 4-Br-A23187 on <i>Bacillus subtilis</i> cells and unilamellar vesicles reveal it to be a potent copper ionophore. <i>Proteomics</i> , 2022, 22, .	2.2	6
94	Translational fidelity and growth of <i>Arabidopsis</i> require stress-sensitive diphthamide biosynthesis. <i>Nature Communications</i> , 2022, 13, .	12.8	6
95	Generation of effective zinc-deficient agar-solidified media allows identification of root morphology changes in response to zinc limitation. <i>Plant Signaling and Behavior</i> , 2020, 15, 1687175.	2.4	5
96	Circadian Life Without Micronutrients: Effects of Altered Micronutrient Supply on Clock Function in <i>Arabidopsis</i> . <i>Methods in Molecular Biology</i> , 2014, 1158, 227-238.	0.9	5
97	Elemental bioimaging of Zn and Cd in leaves of hyperaccumulator <i>Arabidopsis halleri</i> using laser ablation-inductively coupled plasma-mass spectrometry and referencing strategies. <i>Chemosphere</i> , 2022, 305, 135267.	8.2	5
98	Differential Diel Translation of Transcripts With Roles in the Transfer and Utilization of Iron-Sulfur Clusters in <i>Arabidopsis</i> . <i>Frontiers in Plant Science</i> , 2018, 9, 1641.	3.6	4
99	Regulation of acetylation of plant cell wall components is complex and responds to external stimuli. <i>Plant Signaling and Behavior</i> , 2020, 15, 1687185.	2.4	4
100	Chloroplast Ribosomes Interact With the Insertase Alb3 in the Thylakoid Membrane. <i>Frontiers in Plant Science</i> , 2021, 12, 781857.	3.6	4
101	Short Transcript-derived Fragments from the Metal Hyperaccumulator Model Species <i>Arabidopsis halleri</i> . <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 2005, 60, 172-178.	1.4	2
102	AhHMA4p: AhHMA4 Expression in tobacco increases zn concentration in young leaves. <i>Journal of Biotechnology</i> , 2010, 150, 495-496.	3.8	1
103	PHYTOREMEDIATION: GREEN AND CLEAN. <i>Acta Horticulturae</i> , 1998, , 329-332.	0.2	1
104	Physiology and metabolism. <i>Current Opinion in Plant Biology</i> , 2011, 14, 223-224.	7.1	0