Uwe Ludewig

List of Publications by Year
in descending order

87 papers	5,631 citations	117625 34 h-index	82547 72 g-index
93 all docs	93 docs citations	93 times ranked	5782 citing authors

#	Article	IF	Citations
1	A systemsâ€biology approach identifies coâ€expression modules in response to low phosphate supply in maize lines of different breeding history. Plant Journal, 2022, 109, 1249-1270.	5.7	8
2	Moderate DNA methylation changes associated with nitrogen remobilization and leaf senescence in Arabidopsis. Journal of Experimental Botany, 2022, 73, 4733-4752.	4.8	5
3	Concentrationâ€dependent physiological and transcriptional adaptations of wheat seedlings to ammonium. Physiologia Plantarum, 2021, 171, 328-342.	5.2	10
4	Arbuscular mycorrhizal colonization outcompetes root hairs in maize under low phosphorus availability. Annals of Botany, 2021, 127, 155-166.	2.9	44
5	Flint maize root mycorrhization and organic acid exudates under phosphorus deficiency: Trends in breeding lines and doubled haploid lines from landraces. Journal of Plant Nutrition and Soil Science, 2021, 184, 346-359.	1.9	10
6	Adjusting plant nutrient acquisition to fluctuating availability: transcriptional co-regulation of the nitrate and phosphate deprivation responses in roots. Journal of Experimental Botany, 2021, 72, 3500-3503.	4.8	4
7	Decline of seedling phosphorus use efficiency in the heterotic pool of flint maize breeding lines since the onset of hybrid breeding. Journal of Agronomy and Crop Science, 2021, 207, 857-872.	3.5	8
8	Heterogeneous nutrient supply promotes maize growth and phosphorus acquisition: additive and compensatory effects of lateral roots and root hairs. Annals of Botany, 2021, 128, 431-440.	2.9	14
9	Disparate Dynamics of Gene Body and cis-Regulatory Element Evolution Illustrated for the Senescence-Associated Cysteine Protease Gene SAG12 of Plants. Plants, 2021, 10, 1380.	3.5	8
10	Loss of <scp>LaMATE</scp> impairs isoflavonoid release from cluster roots of phosphorusâ€deficient white lupin. Physiologia Plantarum, 2021, 173, 1207-1220.	5.2	7
11	Mineral-Ecological Cropping Systemsâ€"A New Approach to Improve Ecosystem Services by Farming without Chemical Synthetic Plant Protection. Agronomy, 2021, 11, 1710.	3.0	25
12	Role of Benzoic Acid and Lettucenin A in the Defense Response of Lettuce against Soil-Borne Pathogens. Plants, 2021, 10, 2336.	3.5	10
13	New insights into HcPTR2A and HcPTR2B, two high-affinity peptide transporters from the ectomycorrhizal model fungus Hebeloma cylindrosporum. Mycorrhiza, 2020, 30, 735-747.	2.8	2
14	Microbial consortia inoculants stimulate early growth of maize depending on nitrogen and phosphorus supply. Plant, Soil and Environment, 2020, 66, 105-112.	2.2	22
15	A twin histidine motif is the core structure for high-affinity substrate selection in plant ammonium transporters. Journal of Biological Chemistry, 2020, 295, 3362-3370.	3.4	15
16	Synergisms of Microbial Consortia, N Forms, and Micronutrients Alleviate Oxidative Damage and Stimulate Hormonal Cold Stress Adaptations in Maize. Frontiers in Plant Science, 2020, 11, 396.	3.6	26
17	<scp>LaALMT1</scp> mediates malate release from phosphorusâ€deficient white lupin root tips and metal root to shoot translocation. Plant, Cell and Environment, 2020, 43, 1691-1706.	5.7	22
18	Improved establishment of Miscanthus Ã— giganteus stem propagation by Herbaspirillum inoculation. Industrial Crops and Products, 2020, 150, 112339.	5.2	9

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19	Impact of Long-Term Organic and Mineral Fertilization on Rhizosphere Metabolites, Rootâ€“Microbial Interactions and Plant Health of Lettuce. Frontiers in Microbiology, 2020, 11, 597745.	3.5	17
20	The LaCEP1 peptide modulates cluster root morphology in <scp><i>Lupinus albus</i></scp>. Physiologia Plantarum, 2019, 166, 525-537.	5.2	16
21	Enhanced tomato plant growth in soil under reduced P supply through microbial inoculants and microbiome shifts. FEMS Microbiology Ecology, 2019, 95, .	2.7	23
22	The role of N form supply for PGPMâ€host plant interactions in maize. Journal of Plant Nutrition and Soil Science, 2019, 182, 908-920.	1.9	22
23	Nitrogenâ€dependent bacterial community shifts in root, rhizome and rhizosphere of nutrientâ€efficient <i>Miscanthus</i> x <i>giganteus</i> from longâ€term field trials. GCB Bioenergy, 2019, 11, 1334-1347.	5.6	30
24	Maize Inoculation with Microbial Consortia: Contrasting Effects on Rhizosphere Activities, Nutrient Acquisition and Early Growth in Different Soils. Microorganisms, 2019, 7, 329.	3.6	22
25	Microbial Consortia versus Single-Strain Inoculants: An Advantage in PGPM-Assisted Tomato Production?. Agronomy, 2019, 9, 105.	3.0	99
26	Ammonium and nitrate regulate NH4+ uptake activity of Arabidopsis ammonium transporter AtAMT1;3 via phosphorylation at multiple C-terminal sites. Journal of Experimental Botany, 2019, 70, 4919-4930.	4.8	41
27	The Form of N Supply Determines Plant Growth Promotion by P-Solubilizing Microorganisms in Maize. Microorganisms, 2019, 7, 38.	3.6	45
28	Estimating the importance of maize root hairs in low phosphorus conditions and under drought. Annals of Botany, 2019, 124, 961-968.	2.9	34
29	A pore-occluding phenylalanine gate prevents ion slippage through plant ammonium transporters. Scientific Reports, 2019, 9, 16765.	3.3	5
30	Improving the efficiency and effectiveness of global phosphorus use: focus on root and rhizosphere levels in the agronomic system. Frontiers of Agricultural Science and Engineering, 2019, 6, 357.	1.4	19
31	Molecular basis of differential nitrogen use efficiencies and nitrogen source preferences in contrasting Arabidopsis accessions. Scientific Reports, 2018, 8, 3373.	3.3	22
32	Biomass increase under zinc deficiency caused by delay of early flowering in Arabidopsis. Journal of Experimental Botany, 2018, 69, 1269-1279.	4.8	11
33	The transcriptome of zinc deficient maize roots and its relationship to DNA methylation loss. BMC Plant Biology, 2018, 18, 372.	3.6	28
34	Perspective on Wheat Yield and Quality with Reduced Nitrogen Supply. Trends in Plant Science, 2018, 23, 1029-1037.	8.8	205
35	Soil Type-Dependent Interactions of P-Solubilizing Microorganisms with Organic and Inorganic Fertilizers Mediate Plant Growth Promotion in Tomato. Agronomy, 2018, 8, 213.	3.0	29
36	Plasticity of DNA methylation and gene expression under zinc deficiency in Arabidopsis roots. Plant and Cell Physiology, 2018, 59, 1790-1802.	3.1	40

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37	Silicon Improves Chilling Tolerance During Early Growth of Maize by Effects on Micronutrient Homeostasis and Hormonal Balances. Frontiers in Plant Science, 2018, 9, 420.	3.6	90
38	Massive Loss of DNA Methylation in Nitrogen-, but Not in Phosphorus-Deficient Zea mays Roots Is Poorly Correlated With Gene Expression Differences. Frontiers in Plant Science, 2018, 9, 497.	3.6	33
39	The Kinase CIPK23 Inhibits Ammonium Transport in <i>Arabidopsis thaliana</i>. Plant Cell, 2017, 29, 409-422.	6.6	165
40	Rhizoctonia solani and Bacterial Inoculants Stimulate Root Exudation of Antifungal Compounds in Lettuce in a Soil-Type Specific Manner. Agronomy, 2017, 7, 44.	3.0	16
41	Increased root hair density by loss of <i>WRKY6</i> in <i>Arabidopsis thaliana</i>. PeerJ, 2017, 5, e2891.	2.0	17
42	Natural Genetic Variation of Seed Micronutrients of Arabidopsis thaliana Grown in Zinc-Deficient and Zinc-Amended Soil. Frontiers in Plant Science, 2016, 7, 1070.	3.6	7
43	Early nitrogenâ€deprivation responses in Arabidopsis roots reveal distinct differences on transcriptome and (phosphoâ€) proteome levels between nitrate and ammonium nutrition. Plant Journal, 2016, 88, 717-734.	5.7	102
44	Silage yield and quality traits in elite maize hybrids and their relationship to elemental concentrations in juvenile plants. Plant Breeding, 2016, 135, 55-62.	1.9	5
45	Site-Dependent Differences in DNA Methylation and Their Impact on Plant Establishment and Phosphorus Nutrition in Populus trichocarpa. PLoS ONE, 2016, 11, e0168623.	2.5	24
46	The putative Cationic Amino Acid Transporter 9 is targeted to vesicles and may be involved in plant amino acid homeostasis. Frontiers in Plant Science, 2015, 06, 212.	3.6	17
47	High and Low Affinity Urea Root Uptake: Involvement of NIP5;1. Plant and Cell Physiology, 2015, 56, 1588-1597.	3.1	29
48	Regulation of length and density of Arabidopsis root hairs by ammonium and nitrate. Journal of Plant Research, 2015, 128, 839-848.	2.4	38
49	Hormonal interactions during cluster-root development in phosphate-deficient white lupin (Lupinus) Tj ETQq1 1 0.784314 rgBT /Overl	3.5	23
50	Protein Dynamics in Young Maize Root Hairs in Response to Macro- and Micronutrient Deprivation. Journal of Proteome Research, 2015, 14, 3362-3371.	3.7	25
51	Auxin-modulated root growth inhibition in Arabidopsis thaliana seedlings with ammonium as the sole nitrogen source. Functional Plant Biology, 2015, 42, 239.	2.1	32
52	A reâ€assessment of sucrose signaling involved in clusterâ€root formation and function in phosphateâ€deficient white lupin (<i>Lupinus albus</i>). Physiologia Plantarum, 2015, 154, 407-419.	5.2	19
53	Uncovering Genes and Ploidy Involved in the High Diversity in Root Hair Density, Length and Response to Local Scarce Phosphate in Arabidopsis thaliana. PLoS ONE, 2015, 10, e0120604.	2.5	52
54	Lysine catabolism, amino acid transport, and systemic acquired resistance. Plant Signaling and Behavior, 2014, 9, e28933.	2.4	29

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55	Switching substrate specificity of AMT/MEP/ Rh proteins. Channels, 2014, 8, 496-502.	2.8	28
56	Altered growth and improved resistance of <i><scp>A</scp>rabidopsis</i> against <i><scp>P</scp>seudomonas syringae</i> by overexpression of the basic amino acid transporter <scp><i>AtCAT1</i></scp>. Plant, Cell and Environment, 2014, 37, 1404-1414.	5.7	49
57	Characterization of the putative amino acid transporter genes AtCAT2, 3 & 4: The tonoplast localized AtCAT2 regulates soluble leaf amino acids. Journal of Plant Physiology, 2014, 171, 594-601.	3.5	40
58	Uncoupling of Ionic Currents from Substrate Transport in the Plant Ammonium Transporter AtAMT1;2. Journal of Biological Chemistry, 2014, 289, 11650-11655.	3.4	23
59	A nitrogen-dependent switch in the high affinity ammonium transport in Medicago truncatula. Plant Molecular Biology, 2014, 86, 485-494.	3.9	25
60	The regulatory network of clusterâ€root function and development in phosphateâ€deficient white lupin (<i>Lupinus albus</i>) identified by transcriptome sequencing. Physiologia Plantarum, 2014, 151, 323-338.	5.2	76
61	Transcriptomic and proteomic comparison of two Miscanthus genotypes: high biomass correlates with investment in primary carbon assimilation and decreased secondary metabolism. Plant and Soil, 2013, 372, 151-165.	3.7	11
62	Root ethylene signalling is involved in Miscanthus sinensis growth promotion by the bacterial endophyte Herbaspirillum frisingense GSF30T. Journal of Experimental Botany, 2013, 64, 4603-4615.	4.8	72
63	The genome of the endophytic bacterium H. frisingense GSF30T identifies diverse strategies in the Herbaspirillum genus to interact with plants. Frontiers in Microbiology, 2013, 4, 168.	3.5	59
64	<i>Siliques Are Red1</i> from Arabidopsis Acts as a Bidirectional Amino Acid Transporter That Is Crucial for the Amino Acid Homeostasis of Siliques Â Â. Plant Physiology, 2012, 158, 1643-1655.	4.8	88
65	H+-Independent Glutamine Transport in Plant Root Tips. PLoS ONE, 2010, 5, e8917.	2.5	76
66	CLC-b-Mediated NOFormula/H+ Exchange Across the Tonoplast of Arabidopsis Vacuoles. Plant and Cell Physiology, 2010, 51, 960-968.	3.1	109
67	A Mycorrhizal-Specific Ammonium Transporter from <i>Lotus japonicus</i> Acquires Nitrogen Released by Arbuscular Mycorrhizal Fungi. Plant Physiology, 2009, 150, 73-83.	4.8	303
68	Channelâ€like NH₃ flux by ammonium transporter AtAMT2. FEBS Letters, 2009, 583, 2833-2838.	2.8	50
69	Molecular determinants of ammonia and urea conductance in plant aquaporin homologs. FEBS Letters, 2008, 582, 2458-2462.	2.8	74
70	Regulation of NH4 Â+ Transport by Essential Cross Talk between AMT Monomers through the Carboxyl Tails Â. Plant Physiology, 2007, 143, 1651-1659.	4.8	138
71	Molecular mechanisms of ammonium transport and accumulation in plants. FEBS Letters, 2007, 581, 2301-2308.	2.8	196
72	Functional and physiological evidence for a Rhesus-type ammonia transporter in<i>Nitrosomonas europaea</i>. FEMS Microbiology Letters, 2007, 273, 260-267.	1.8	56

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73	Ammonium ion transport by the AMT/Rh homologue LeAMT1;1. Biochemical Journal, 2006, 396, 431-437.	3.7	68
74	The Arabidopsis Major Intrinsic Protein NIP5;1 Is Essential for Efficient Boron Uptake and Plant Development under Boron Limitation. Plant Cell, 2006, 18, 1498-1509.	6.6	619
75	Tonoplast Intrinsic Proteins AtTIP2;1 and AtTIP2;3 Facilitate NH3 Transport into the Vacuole. Plant Physiology, 2005, 137, 671-680.	4.8	297
76	Overexpression of GLUTAMINE DUMPER1 Leads to Hypersecretion of Glutamine from Hydathodes of Arabidopsis Leaves[W]. Plant Cell, 2004, 16, 1827-1840.	6.6	143
77	Molecular and Functional Characterization of a Family of Amino Acid Transporters from Arabidopsis. Plant Physiology, 2004, 136, 3104-3113.	4.8	139
78	Urea Transport by Nitrogen-Regulated Tonoplast Intrinsic Proteins in Arabidopsis. Plant Physiology, 2003, 133, 1220-1228.	4.8	234
79	AtDUR3 Encodes a New Type of High-Affinity Urea/H+ Symporter in Arabidopsis. Plant Cell, 2003, 15, 790-800.	6.6	136
80	Homo- and Hetero-oligomerization of Ammonium Transporter-1 NH4+ Uniporters. Journal of Biological Chemistry, 2003, 278, 45603-45610.	3.4	153
81	Uniport of NH4+by the Root Hair Plasma Membrane Ammonium Transporter LeAMT1;1. Journal of Biological Chemistry, 2002, 277, 13548-13555.	3.4	221
82	Genes and Proteins for Solute Transport and Sensing. The Arabidopsis Book, 2002, 1, e0092.	0.5	11
83	Low and high affinity amino acid H+â€cotransporters for cellular import of neutral and charged amino acids. Plant Journal, 2002, 29, 717-731.	5.7	192
84	Conservation of amino acid transporters in fungi, plants and animals. Trends in Biochemical Sciences, 2002, 27, 139-147.	7.5	210
85	Rhesus factors and ammonium: a function in efflux?. Genome Biology, 2001, 2, reviews1010.1.	9.6	40
86	Drought-protective effects of nutrient seed treatments during early growth of oilseed rape. Journal of Plant Nutrition, 0, , 1-19.	1.9	2
87	Abscisic acid influences ammonium transport via regulation of kinase CIPK23 and ammonium transporters. Plant Physiology, 0, , .	4.8	7