Uwe Ludewig

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/218076/publications.pdf

Version: 2024-02-01

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	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
2	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
3	Tonoplast Intrinsic Proteins AtTIP2;1 and AtTIP2;3 Facilitate NH3 Transport into the Vacuole. Plant Physiology, 2005, 137, 671-680.	4.8	297
4	Urea Transport by Nitrogen-Regulated Tonoplast Intrinsic Proteins in Arabidopsis. Plant Physiology, 2003, 133, 1220-1228.	4.8	234
5	Uniport of NH4+by the Root Hair Plasma Membrane Ammonium Transporter LeAMT1;1. Journal of Biological Chemistry, 2002, 277, 13548-13555.	3.4	221
6	Conservation of amino acid transporters in fungi, plants and animals. Trends in Biochemical Sciences, 2002, 27, 139-147.	7.5	210
7	Perspective on Wheat Yield and Quality with Reduced Nitrogen Supply. Trends in Plant Science, 2018, 23, 1029-1037.	8.8	205
8	Molecular mechanisms of ammonium transport and accumulation in plants. FEBS Letters, 2007, 581, 2301-2308.	2.8	196
9	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
10	The Kinase CIPK23 Inhibits Ammonium Transport in <i>Arabidopsis thaliana</i>. Plant Cell, 2017, 29, 409-422.	6.6	165
11	Homo- and Hetero-oligomerization of Ammonium Transporter-1 NH4+ Uniporters. Journal of Biological Chemistry, 2003, 278, 45603-45610.	3.4	153
12	Overexpression of GLUTAMINE DUMPER1 Leads to Hypersecretion of Glutamine from Hydathodes of Arabidopsis Leaves[W]. Plant Cell, 2004, 16, 1827-1840.	6.6	143
13	Molecular and Functional Characterization of a Family of Amino Acid Transporters from Arabidopsis. Plant Physiology, 2004, 136, 3104-3113.	4.8	139
14	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
15	AtDUR3 Encodes a New Type of High-Affinity Urea/H+ Symporter in Arabidopsis. Plant Cell, 2003, 15, 790-800.	6.6	136
16	CLC-b-Mediated NOFormula/H+ Exchange Across the Tonoplast of Arabidopsis Vacuoles. Plant and Cell Physiology, 2010, 51, 960-968.	3.1	109
17	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
18	Microbial Consortia versus Single-Strain Inoculants: An Advantage in PGPM-Assisted Tomato Production?. Agronomy, 2019, 9, 105.	3.0	99

#	Article	IF	Citations
19	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
20	<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
21	H+-Independent Glutamine Transport in Plant Root Tips. PLoS ONE, 2010, 5, e8917.	2.5	76
22	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
23	Molecular determinants of ammonia and urea conductance in plant aquaporin homologs. FEBS Letters, 2008, 582, 2458-2462.	2.8	74
24	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
25	Ammonium ion transport by the AMT/Rh homologue LeAMT1;1. Biochemical Journal, 2006, 396, 431-437.	3.7	68
26	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
27	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
28	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
29	Channelâ€like NH₃ flux by ammonium transporter AtAMT2. FEBS Letters, 2009, 583, 2833-2838.	2.8	50
30	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
31	The Form of N Supply Determines Plant Growth Promotion by P-Solubilizing Microorganisms in Maize. Microorganisms, 2019, 7, 38.	3.6	45
32	Arbuscular mycorrhizal colonization outcompetes root hairs in maize under low phosphorus availability. Annals of Botany, 2021, 127, 155-166.	2.9	44
33	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
34	Rhesus factors and ammonium: a function in efflux?. Genome Biology, 2001, 2, reviews1010.1.	9.6	40
35	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
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

#	Article	IF	Citations
37	Regulation of length and density of Arabidopsis root hairs by ammonium and nitrate. Journal of Plant Research, 2015, 128, 839-848.	2.4	38
38	Estimating the importance of maize root hairs in low phosphorus conditions and under drought. Annals of Botany, 2019, 124, 961-968.	2.9	34
39	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
40	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
41	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
42	Lysine catabolism, amino acid transport, and systemic acquired resistance. Plant Signaling and Behavior, 2014, 9, e28933.	2.4	29
43	High and Low Affinity Urea Root Uptake: Involvement of NIP5;1. Plant and Cell Physiology, 2015, 56, 1588-1597.	3.1	29
44	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
45	Switching substrate specificity of AMT/MEP/ Rh proteins. Channels, 2014, 8, 496-502.	2.8	28
46	The transcriptome of zinc deficient maize roots and its relationship to DNA methylation loss. BMC Plant Biology, 2018, 18, 372.	3.6	28
47	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
48	A nitrogen-dependent switch in the high affinity ammonium transport in Medicago truncatula. Plant Molecular Biology, 2014, 86, 485-494.	3.9	25
49	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
50	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
51	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
52	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
53	Hormonal interactions during cluster-root development in phosphate-deficient white lupin (Lupinus) Tj ETQq1 1 0.784314 rgBT /Overlo	3.5	23
54	Enhanced tomato plant growth in soil under reduced P supply through microbial inoculants and microbiome shifts. FEMS Microbiology Ecology, 2019, 95, .	2.7	23

#	Article	IF	Citations
55	Molecular basis of differential nitrogen use efficiencies and nitrogen source preferences in contrasting Arabidopsis accessions. Scientific Reports, 2018, 8, 3373.	3.3	22
56	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
57	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
58	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
59	<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
60	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
61	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
62	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
63	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
64	Increased root hair density by loss of <i>WRKY6</i> in <i>Arabidopsis thaliana</i>. PeerJ, 2017, 5, e2891.	2.0	17
65	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
66	The LaCEP1 peptide modulates cluster root morphology in <scp><i>Lupinus albus</i></scp>. Physiologia Plantarum, 2019, 166, 525-537.	5.2	16
67	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
68	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
69	Genes and Proteins for Solute Transport and Sensing. The Arabidopsis Book, 2002, 1, e0092.	0.5	11
70	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
71	Biomass increase under zinc deficiency caused by delay of early flowering in Arabidopsis. Journal of Experimental Botany, 2018, 69, 1269-1279.	4.8	11
72	Concentrationâ€dependent physiological and transcriptional adaptations of wheat seedlings to ammonium. Physiologia Plantarum, 2021, 171, 328-342.	5.2	10

#	Article	IF	Citations
73	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
74	Role of Benzoic Acid and Lettucenin A in the Defense Response of Lettuce against Soil-Borne Pathogens. Plants, 2021, 10, 2336.	3.5	10
75	Improved establishment of Miscanthus Ã— giganteus stem propagation by Herbaspirillum inoculation. Industrial Crops and Products, 2020, 150, 112339.	5.2	9
76	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
77	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
78	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
79	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
80	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
81	Abscisic acid influences ammonium transport via regulation of kinase CIPK23 and ammonium transporters. Plant Physiology, 0, , .	4.8	7
82	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
83	A pore-occluding phenylalanine gate prevents ion slippage through plant ammonium transporters. Scientific Reports, 2019, 9, 16765.	3.3	5
84	Moderate DNA methylation changes associated with nitrogen remobilization and leaf senescence in Arabidopsis. Journal of Experimental Botany, 2022, 73, 4733-4752.	4.8	5
85	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
86	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
87	Drought-protective effects of nutrient seed treatments during early growth of oilseed rape. Journal of Plant Nutrition, 0, , 1-19.	1.9	2