Wolfgang Schmidt

List of Publications by Citations

116 papers	5,477 citations	41 h-index	72 g-index
136 ext. papers	6,805 ext. citations	5.7 avg, IF	6.18 L-index

#	Paper	IF	Citations
116	Dissecting iron deficiency-induced proton extrusion in Arabidopsis roots. *New Phytologist*, **2009**, 183, 1072-1084	9.8	369
115	Mechanisms and regulation of reduction-based iron uptake in plants. *New Phytologist*, **1999**, 141, 1-26	9.8	310
114	Environmentally induced plasticity of root hair development in Arabidopsis. *Plant Physiology*, **2004**, 134, 409-19	6.6	209
113	Central Amazonian Floodplain Forests: Tree Adaptations in a Pulsing System. *Botanical Review, The*, **2004**, 70, 357-380	3.8	200
112	Iron solutions: acquisition strategies and signaling pathways in plants. *Trends in Plant Science*, **2003**, 8, 188-93	13.1	186
111	Complementary proteome and transcriptome profiling in phosphate-deficient Arabidopsis roots reveals multiple levels of gene regulation. *Molecular and Cellular Proteomics*, **2012**, 11, 1156-66	7.6	180
110	Different pathways are involved in phosphate and iron stress-induced alterations of root epidermal cell development. *Plant Physiology*, **2001**, 125, 2078-84	6.6	180
109	iTRAQ protein profile analysis of Arabidopsis roots reveals new aspects critical for iron homeostasis. *Plant Physiology*, **2011**, 155, 821-34	6.6	177
108	Role of hormones in the induction of iron deficiency responses in Arabidopsis roots. *Plant Physiology*, **2000**, 122, 1109-18	6.6	171
107	Mutually exclusive alterations in secondary metabolism are critical for the uptake of insoluble iron compounds by Arabidopsis and Medicago truncatula. *Plant Physiology*, **2013**, 162, 1473-85	6.6	162
106	Fe homeostasis in plant cells: does nicotianamine play multiple roles in the regulation of cytoplasmic Fe concentration?. *Planta*, **2001**, 213, 967-76	4.7	133
105	Transcriptional profiling of the Arabidopsis iron deficiency response reveals conserved transition metal homeostasis networks. *Plant Physiology*, **2010**, 152, 2130-41	6.6	128
104	Early iron-deficiency-induced transcriptional changes in Arabidopsis roots as revealed by microarray analyses. *BMC Genomics*, **2009**, 10, 147	4.5	127
103	Iron stress-induced changes in root epidermal cell fate are regulated independently from physiological responses to low iron availability. *Plant Physiology*, **2001**, 125, 1679-87	6.6	96
102	The regulation and plasticity of root hair patterning and morphogenesis. *Development (Cambridge)*, **2016**, 143, 1848-58	6.6	94
101	Mobilization of Iron by Plant-Borne Coumarins. *Trends in Plant Science*, **2017**, 22, 538-548	13.1	93
100	Expression changes of ribosomal proteins in phosphate- and iron-deficient Arabidopsis roots predict stress-specific alterations in ribosome composition. *BMC Genomics*, **2013**, 14, 783	4.5	92

99	Coexpression-based clustering of Arabidopsis root genes predicts functional modules in early phosphate deficiency signaling. *Plant Physiology*, **2011**, 155, 1383-402	6.6	91
98	The transcriptional response of Arabidopsis leaves to Fe deficiency. *Frontiers in Plant Science*, **2013**, 4, 276	6.2	84
97	ALFIN-LIKE 6 is involved in root hair elongation during phosphate deficiency in Arabidopsis. *New Phytologist*, **2013**, 198, 709-720	9.8	83
96	IRON MAN is a ubiquitous family of peptides that control iron transport in plants. *Nature Plants*, **2018**, 4, 953-963	11.5	83
95	A lysine-63-linked ubiquitin chain-forming conjugase, UBC13, promotes the developmental responses to iron deficiency in Arabidopsis roots. *Plant Journal*, **2010**, 62, 330-43	6.9	79
94	Apoplasmic barriers and oxygen transport properties of hypodermal cell walls in roots from four amazonian tree species. *Plant Physiology*, **2003**, 132, 206-17	6.6	78
93	Manganese deficiency alters the patterning and development of root hairs in Arabidopsis. *Journal of Experimental Botany*, **2008**, 59, 3453-64	7	77
92	Genome-wide detection of condition-sensitive alternative splicing in Arabidopsis roots. *Plant Physiology*, **2013**, 162, 1750-63	6.6	76
91	Mapping gene activity of Arabidopsis root hairs. *Genome Biology*, **2013**, 14, R67	18.3	71
90	PFT1, a transcriptional Mediator complex subunit, controls root hair differentiation through reactive oxygen species (ROS) distribution in Arabidopsis. *New Phytologist*, **2013**, 197, 151-161	9.8	71
89	Laser microdissection-assisted analysis of the functional fate of iron deficiency-induced root hairs in cucumber. *Journal of Experimental Botany*, **2008**, 59, 697-704	7	70
88	Quantitative phosphoproteome profiling of iron-deficient Arabidopsis roots. *Plant Physiology*, **2012** , 159, 403-17	6.6	65
87	Iron in seeds - loading pathways and subcellular localization. *Frontiers in Plant Science*, **2014**, 4, 535	6.2	63
86	Vacuolar-Iron-Transporter1-Like proteins mediate iron homeostasis in Arabidopsis. *PLoS ONE*, **2014**, 9, e110468	3.7	61
85	Regulation of flowering time by the histone deacetylase HDA5 in Arabidopsis. *Plant Journal*, **2015**, 82, 925-936	6.9	57
84	A MYB/ZML Complex Regulates Wound-Induced Lignin Genes in Maize. *Plant Cell*, **2015**, 27, 3245-59	11.6	55
83	Scopoletin 8-Hydroxylase-Mediated Fraxetin Production Is Crucial for Iron Mobilization. *Plant Physiology*, **2018**, 177, 194-207	6.6	51
82	Water-extractable humic substances alter root development and epidermal cell pattern in Arabidopsis. *Plant and Soil*, **2007**, 300, 259-267	4.2	51

81	Formation of transfer cells and H(+)-ATPase expression in tomato roots under P and Fe deficiency. *Planta*, **2002**, 215, 304-11	4.7	51
80	Ubiquitin-specific protease 14 (UBP14) is involved in root responses to phosphate deficiency in Arabidopsis. *Molecular Plant*, **2010**, 3, 212-23	14.4	47
79	Exchange fluxes of NO2 and O3 at soil and leaf surfaces in an Amazonian rain forest. *Journal of Geophysical Research*, **2002**, 107, LBA 27-1		45
78	A hitchhiker's guide to the Arabidopsis ferrome. *Plant Physiology and Biochemistry*, **2011**, 49, 462-70	5.4	43
77	Influence of chromium(lll) on root-associated Fe(lll) reductase inPlantago lanceolataL.. *Journal of Experimental Botany*, **1996**, 47, 805-810	7	42
76	Proton pumping by tomato roots. Effect of Fe deficiency and hormones on the activity and distribution of plasma membrane H+-ATPase in rhizodermal cells. *Plant, Cell and Environment*, **2003**, 26, 361-370	8.4	41
75	Impact of root morphology on metabolism and oxygen distribution in roots and rhizosphere from two Central Amazon floodplain tree species. *Functional Plant Biology*, **2002**, 29, 1025-1035	2.7	41
74	One way. Or another? Iron uptake in plants. *New Phytologist*, **2017**, 214, 500-505	9.8	39
73	The histone deacetylase HDA19 controls root cell elongation and modulates a subset of phosphate starvation responses in Arabidopsis. *Scientific Reports*, **2015**, 5, 15708	4.9	36
72	Members of a small family of nodulin-like genes are regulated under iron deficiency in roots of Arabidopsis thaliana. *Plant Physiology and Biochemistry*, **2011**, 49, 557-64	5.4	36
71	Positional signaling and expression of ENHANCER OF TRY AND CPC1 are tuned to increase root hair density in response to phosphate deficiency in Arabidopsis thaliana. *PLoS ONE*, **2013**, 8, e75452	3.7	36
70	Iron Homeostasis in Plants: Sensing and Signaling Pathways. *Journal of Plant Nutrition*, **2003**, 26, 2211-2230	2.9	35
69	Genome-wide co-expression analysis predicts protein kinases as important regulators of phosphate deficiency-induced root hair remodeling in Arabidopsis. *BMC Genomics*, **2013**, 14, 210	4.5	32
68	The conundrum of discordant protein and mRNA expression. Are plants special?. *Frontiers in Plant Science*, **2014**, 5, 619	6.2	32
67	From faith to fate: Ethylene signaling in morphogenic responses to P and Fe deficiency. *Journal of Plant Nutrition and Soil Science*, **2001**, 164, 147-154	2.3	30
66	Post-Transcriptional Coordination of the Arabidopsis Iron Deficiency Response is Partially Dependent on the E3 Ligases RING DOMAIN LIGASE1 (RGLG1) and RING DOMAIN LIGASE2 (RGLG2). *Molecular and Cellular Proteomics*, **2015**, 14, 2733-52	7.6	27
65	The paralogous R3 MYB proteins CAPRICE, TRIPTYCHON and ENHANCER OF TRY AND CPC1 play pleiotropic and partly non-redundant roles in the phosphate starvation response of Arabidopsis roots. *Journal of Experimental Botany*, **2015**, 66, 4821-34	7	26
64	Reduction of root iron in Plantago lanceolata during recovery from Fe deficiency. *Physiologia Plantarum*, **1996**, 98, 587-593	4.6	26

63	Root-mediated ferric reduction-responses to iron deficiency, exogenously induced changes in hormonal balance and inhibition of protein synthesis. *Journal of Experimental Botany*, **1994**, 45, 725-731	7	26
62	Reduction-based iron uptake revisited: on the role of secreted iron-binding compounds. *Plant Signaling and Behavior*, **2013**, 8, e26116	2.5	25
61	COSY catalyses trans-cis isomerization and lactonization in the biosynthesis of coumarins. *Nature Plants*, **2019**, 5, 1066-1075	11.5	24
60	Iron acquisition strategies in land plants: not so different after all. *New Phytologist*, **2019**, 224, 11-18	9.8	24
59	Fe-EDTA Reduction in Roots of Plantago lanceolata by a NADH-dependent Plasma Membrane-bound Redox System. *Journal of Plant Physiology*, **1990**, 136, 51-55	3.6	24
58	Genes of ACYL CARRIER PROTEIN Family Show Different Expression Profiles and Overexpression of ACYL CARRIER PROTEIN 5 Modulates Fatty Acid Composition and Enhances Salt Stress Tolerance in. *Frontiers in Plant Science*, **2017**, 8, 987	6.2	22
57	Reprogramming of root epidermal cells in response to nutrient deficiency. *Biochemical Society Transactions*, **2007**, 35, 161-3	5.1	22
56	Central Amazon Floodplain Forests: Root Adaptations to Prolonged Flooding. *Russian Journal of Plant Physiology*, **2003**, 50, 848-855	1.6	20
55	Pyridine nucleotide pool size changes in iron-deficient Plantago lanceolata roots during reduction of external oxidants. *Physiologia Plantarum*, **1996**, 98, 215-221	4.6	20
54	An Inventory of Nutrient-Responsive Genes in Arabidopsis Root Hairs. *Frontiers in Plant Science*, **2016**, 7, 237	6.2	19
53	Deubiquitinating Enzyme OTU5 Contributes to DNA Methylation Patterns and Is Critical for Phosphate Nutrition Signals. *Plant Physiology*, **2017**, 175, 1826-1838	6.6	17
52	Iron Stress Responses in Roots of Strategy I Plants **2006**, 229-250		17
51	Functional implications of K63-linked ubiquitination in the iron deficiency response of Arabidopsis roots. *Frontiers in Plant Science*, **2014**, 4, 542	6.2	16
50	Internal oxygen transport in cuttings from flood-adapted várzea tree species. *Tree Physiology*, **2003** , 23, 1069-76	4.2	16
49	Spatial and temporal patterns of net nitrate uptake regulation and kinetics along the tap root of Citrus aurantium. *Acta Physiologiae Plantarum*, **2010**, 32, 683-693	2.6	15
48	Iron stress-induced redox reactions in bean roots. *Physiologia Plantarum*, **1993**, 89, 448-452	4.6	15
47	A PHD in histone language: on the role of histone methylation in plant responses to phosphate deficiency. *Plant Signaling and Behavior*, **2013**, 8, e24381	2.5	14
46	Expression, localization, and regulation of the iron transporter LeIRT1 in tomato roots. *Plant and Soil*, **2006**, 284, 101-108	4.2	14

45	Specificity of the Electron Donor for Transmembrane Redox Systems in Bean (Phaseolus vulgaris L.) Roots. *Journal of Plant Physiology*, **1991**, 138, 450-453	3.6	14
44	Iron stress-induced redox reactions in bean roots. *Physiologia Plantarum*, **1993**, 89, 448-452	4.6	13
43	Effects of various inhibitors on in vivo reduction by Plantago lanceolata L. roots. *Plant and Soil*, **1994**, 165, 207-212	4.2	13
42	Ferric reduction by geum urbanum: A kinetic study. *Journal of Plant Nutrition*, **1991**, 14, 1023-1034	2.3	13
41	Systems-wide analysis of manganese deficiency-induced changes in gene activity of Arabidopsis roots. *Scientific Reports*, **2016**, 6, 35846	4.9	12
40	The enigma of eIF5A in the iron deficiency response of Arabidopsis. *Plant Signaling and Behavior*, **2011**, 6, 528-30	2.5	12
39	Sensitivity to and requirement for iron in Plantago species. *New Phytologist*, **1998**, 138, 639-651	9.8	12
38	The Deubiquitinase OTU5 Regulates Root Responses to Phosphate Starvation. *Plant Physiology*, **2018**, 176, 2441-2455	6.6	11
37	The multiple facets of root iron reduction. *Journal of Experimental Botany*, **2017**, 68, 5021-5027	7	11
36	PFT1-controlled ROS balance is critical for multiple stages of root hair development in Arabidopsis. *Plant Signaling and Behavior*, **2013**, 8, e24066	2.5	10
35	From priming to plasticity: the changing fate of rhizodermic cells. *BioEssays*, **2008**, 30, 75-81	4.1	10
34	Sensing Iron A Whole Plant Approach. *Annals of Botany*, **2000**, 86, 589-593	4.1	10
33	'Candidatus Phytoplasma solani' interferes with the distribution and uptake of iron in tomato. *BMC Genomics*, **2019**, 20, 703	4.5	9
32	The enigma of environmental pH sensing in plants. *Nature Plants*, **2021**, 7, 106-115	11.5	9
31	A digital compendium of genes mediating the reversible phosphorylation of proteins in fe-deficient Arabidopsis roots. *Frontiers in Plant Science*, **2013**, 4, 173	6.2	8
30	Non-proteolytic protein ubiquitination is crucial for iron deficiency signaling. *Plant Signaling and Behavior*, **2010**, 5, 561-3	2.5	8
29	Phosphate deficiency-induced cell wall remodeling: linking gene networks with polysaccharide meshworks. *Plant Signaling and Behavior*, **2011**, 6, 700-2	2.5	8
28	Inner voices meet outer signals: The plasticity of rhizodermic cells. *Plant Science*, **2008**, 174, 239-245	5.3	8

27	pH-dependent transcriptional profile changes in iron-deficient Arabidopsis roots. *BMC Genomics*, **2020**, 21, 694	4.5	8
26	Isobaric Tag for Relative and Absolute Quantitation (iTRAQ)-Based Protein Profiling in Plants. *Methods in Molecular Biology*, **2016**, 1450, 213-21	1.4	7
25	Discriminative gene co-expression network analysis uncovers novel modules involved in the formation of phosphate deficiency-induced root hairs in Arabidopsis. *Scientific Reports*, **2016**, 6, 26820	4.9	7
24	Omics Approaches Towards Understanding Plant Phosphorus Acquisition and Use **2015**, 65-97		6
23	Orientation of NAHD-linked ferric chelate (turbo) reductase in plasma membranes from roots ofPlantago lanceolata. *Protoplasma*, **1998**, 203, 186-193	3.4	6
22	Reduction of extracytoplasmic acceptors by roots of Plantago lanceolata L. Evidence for enzyme heterogeneity. *Plant Science*, **1994**, 100, 139-146	5.3	6
21	Root systems biology. *Frontiers in Plant Science*, **2014**, 5, 215	6.2	5
20	Iron distribution in three central Amazon tree species from whitewater-inundation areas (v[illegible]zea) subjected to different iron regimes. *Trees - Structure and Function*, **2003**, 17, 535-541	2.6	5
19	Effects of various inhibitors on in vivo reduction by Plantago lanceolata L. roots **1995**, 77-82		5
18	Iron in Plants **2013**,		3
17	Modulation of the root epidermal phenotype by hormones, inhibitors and iron regime. *Plant and Soil*, **2002**, 241, 87-96	4.2	3
16	IRONMAN tunes responses to iron deficiency in concert with environmental pH. *Plant Physiology*, **2021**, 187, 1728-1745	6.6	3
15	The Yin and Yang of Iron in Plants and Beyond: 19th International Symposium on Iron Nutrition and Interactions in Plants (ISINIP) in Taiwan. *Plant and Cell Physiology*, **2019**, 60, 1401-1404	4.9	1
14	OTU5 tunes environmental responses by sustaining chromatin structure. *Plant Signaling and Behavior*, **2018**, 13, e1435963	2.5	1
13	Genomically Hardwired Regulation of Gene Activity Orchestrates Cellular Iron Homeostasis in Arabidopsis.. *RNA Biology*, **2022**, 19, 143-161	4.8	1
12	Nutrients as Regulators of Root Morphology and Architecture. *Books in Soils, Plants, and the Environment*, **2007**, 135-150		1
11	Chromatin enrichment for proteomics in plants (ChEP-P) implicates the histone reader ALFIN-LIKE 6 in jasmonate signalling. *BMC Genomics*, **2021**, 22, 845	4.5	1
10	pH-Dependent Transcriptional Profile Changes in Iron-Deficient Arabidopsis Roots		1

9	IRON MAN, a ubiquitous family of peptides that control iron transport in plants		1
8	Ethylene Response Factor109 Attunes Immunity, Photosynthesis, and Iron Homeostasis in Arabidopsis Leaves.. *Frontiers in Plant Science*, **2022**, 13, 841366	6.2	1
7	Infection by phloem-limited phytoplasma affects mineral nutrient homeostasis in tomato leaf tissues.. *Journal of Plant Physiology*, **2022**, 271, 153659	3.6	1
6	Omics Approaches Towards Understanding Plant Phosphorus Acquisition and Use **2017**, 65-97		0
5	A Quick Method to Quantify Iron in Seedlings.. *Bio-protocol*, **2022**, 12, e4342	0.9	0
4	Characterization of Root Epidermal Cell Patterning and Differentiation in Arabidopsis. *Methods in Molecular Biology*, **2018**, 1761, 85-93	1.4	
3	It's all in the title. *FEBS Letters*, **2021**, 595, 2641-2643	3.8	
2	Minor Nutrients **2004**, 726-728		
1	Plasticity of Root Architecture: Developmental and Nutritional Aspects **2004**, 1-4		