Markus Geisler

List of Publications by Year
in descending order

94 papers	11,040 citations	36303 51 h-index	38395 95 g-index
105 all docs	105 docs citations	105 times ranked	9312 citing authors

#	Article	IF	Citations
1	PIN Proteins Perform a Rate-Limiting Function in Cellular Auxin Efflux. Science, 2006, 312, 914-918.	12.6	805
2	Plant ABC proteins â€“ a unified nomenclature and updated inventory. Trends in Plant Science, 2008, 13, 151-159.	8.8	652
3	Arsenic tolerance in Arabidopsis is mediated by two ABCC-type phytochelatin transporters. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21187-21192.	7.1	555
4	Cellular efflux of auxin catalyzed by the Arabidopsis MDR/PGP transporter AtPGP1. Plant Journal, 2005, 44, 179-194.	5.7	496
5	Subcellular homeostasis of phytohormone auxin is mediated by the ER-localized PIN5 transporter. Nature, 2009, 459, 1136-1140.	27.8	462
6	Multifunctionality of plant ABC transporters â€“ more than just detoxifiers. Planta, 2002, 214, 345-355.	3.2	394
7	Interactions among PIN-FORMED and P-Glycoprotein Auxin Transporters in Arabidopsis. Plant Cell, 2007, 19, 131-147.	6.6	387
8	The ABC of auxin transport: The role of p-glycoproteins in plant development. FEBS Letters, 2006, 580, 1094-1102.	2.8	353
9	A novel putative auxin carrier family regulates intracellular auxin homeostasis in plants. Nature, 2012, 485, 119-122.	27.8	345
10	TWISTED DWARF1, a Unique Plasma Membrane-anchored Immunophilin-like Protein, Interacts withArabidopsisMultidrug Resistance-like Transporters AtPGP1 and AtPGP19. Molecular Biology of the Cell, 2003, 14, 4238-4249.	2.1	247
11	ABCB19/PGP19 stabilises PIN1 in membrane microdomains in Arabidopsis. Plant Journal, 2009, 57, 27-44.	5.7	239
12	ER-localized auxin transporter PIN8 regulates auxin homeostasis and male gametophyte development in Arabidopsis. Nature Communications, 2012, 3, 941.	12.8	233
13	MDR-like ABC transporter AtPGP4 is involved in auxin-mediated lateral root and root hair development. FEBS Letters, 2005, 579, 5399-5406.	2.8	202
14	Export of Salicylic Acid from the Chloroplast Requires the Multidrug and Toxin Extrusion-Like Transporter EDS5 Â Â. Plant Physiology, 2013, 162, 1815-1821.	4.8	195
15	The ACA4 Gene of Arabidopsis Encodes a Vacuolar Membrane Calcium Pump That Improves Salt Tolerance in Yeast. Plant Physiology, 2000, 124, 1814-1827.	4.8	194
16	Flavonoids Redirect PIN-mediated Polar Auxin Fluxes during Root Gravitropic Responses. Journal of Biological Chemistry, 2008, 283, 31218-31226.	3.4	187
17	Arabidopsis PIS1 encodes the ABCG37 transporter of auxinic compounds including the auxin precursor indole-3-butyric acid. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10749-10753.	7.1	183
18	Immunophilin-like TWISTED DWARF1 Modulates Auxin Efflux Activities of Arabidopsis P-glycoproteins*. Journal of Biological Chemistry, 2006, 281, 30603-30612.	3.4	181

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19	The auxin response factor, <scp>OsARF</scp>19, controls rice leaf angles through positively regulating <scp>OsGH</scp>3â€5 and <scp>OsBRI</scp>1. Plant, Cell and Environment, 2015, 38, 638-654.	5.7	181
20	Molecular aspects of higher plant P-type Ca2+-ATPases. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1465, 52-78.	2.6	178
21	Arabidopsis PCR2 Is a Zinc Exporter Involved in Both Zinc Extrusion and Long-Distance Zinc Transport. Plant Cell, 2010, 22, 2237-2252.	6.6	170
22	Flavonols Accumulate Asymmetrically and Affect Auxin Transport in Arabidopsis Â Â Â. Plant Physiology, 2011, 156, 585-595.	4.8	167
23	Modulation of P-glycoproteins by Auxin Transport Inhibitors Is Mediated by Interaction with Immunophilins. Journal of Biological Chemistry, 2008, 283, 21817-21826.	3.4	162
24	The interâ€kingdom volatile signal indole promotes root development by interfering with auxin signalling. Plant Journal, 2014, 80, 758-771.	5.7	162
25	The Arabidopsis PHYTOCHROME KINASE SUBSTRATE2 Protein Is a Phototropin Signaling Element That Regulates Leaf Flattening and Leaf Positioning. Plant Physiology, 2010, 152, 1391-1405.	4.8	157
26	Chilling Tolerance in Arabidopsis Involves ALA1, a Member of a New Family of Putative Aminophospholipid Translocases. Plant Cell, 2000, 12, 2441-2453.	6.6	148
27	The auxin transporter, Os<scp>AUX</scp>1, is involved in primary root and root hair elongation and in Cd stress responses in rice (OryzaÂsativa L.). Plant Journal, 2015, 83, 818-830.	5.7	144
28	Disruption ofAtMRP4, a guard cell plasma membrane ABCC-type ABC transporter, leads to deregulation of stomatal opening and increased drought susceptibility. Plant Journal, 2004, 39, 219-236.	5.7	141
29	Plant development regulated by cytokinin sinks. Science, 2016, 353, 1027-1030.	12.6	141
30	Arabidopsis ABCB21 is a Facultative Auxin Importer/Exporter Regulated by Cytoplasmic Auxin Concentration. Plant and Cell Physiology, 2012, 53, 2090-2100.	3.1	132
31	Plant hormone transporters: what we know and what we would like to know. BMC Biology, 2017, 15, 93.	3.8	129
32	WOX5â€“IAA17 Feedback Circuit-Mediated Cellular Auxin Response Is Crucial for the Patterning of Root Stem Cell Niches in Arabidopsis. Molecular Plant, 2014, 7, 277-289.	8.3	125
33	At-ACA8 Encodes a Plasma Membrane-Localized Calcium-ATPase of Arabidopsis with a Calmodulin-Binding Domain at the N Terminus. Plant Physiology, 2000, 123, 1495-1506.	4.8	120
34	A Critical View on ABC Transporters and Their Interacting Partners in Auxin Transport. Plant and Cell Physiology, 2017, 58, 1601-1614.	3.1	118
35	Identification of an ABCB/P-glycoprotein-specific Inhibitor of Auxin Transport by Chemical Genomics. Journal of Biological Chemistry, 2010, 285, 23309-23317.	3.4	114
36	Regulation of ABCB1/PGP1-catalysed auxin transport by linker phosphorylation. EMBO Journal, 2012, 31, 2965-2980.	7.8	114

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37	Ectopic expression of Arabidopsis ABC transporter MRP7 modifies cadmium root-to-shoot transport and accumulation. Environmental Pollution, 2009, 157, 2781-2789.	7.5	113
38	Directional Auxin Transport Mechanisms in Early Diverging Land Plants. Current Biology, 2014, 24, 2786-2791.	3.9	113
39	ArabidopsisImmunophilin-like TWD1 Functionally Interacts with Vacuolar ABC Transporters. Molecular Biology of the Cell, 2004, 15, 3393-3405.	2.1	99
40	Interactions of PIN and PGP auxin transport mechanisms. Biochemical Society Transactions, 2007, 35, 137-141.	3.4	94
41	TWISTED DWARF1 Mediates the Action of Auxin Transport Inhibitors on Actin Cytoskeleton Dynamics. Plant Cell, 2016, 28, 930-948.	6.6	88
42	Arabidopsis TWISTED DWARF1 Functionally Interacts with Auxin Exporter ABCB1 on the Root Plasma Membrane Â. Plant Cell, 2013, 25, 202-214.	6.6	83
43	Auxin transport during root gravitropism: transporters and techniques. Plant Biology, 2014, 16, 50-57.	3.8	78
44	Ins and outs of AlphaFold2 transmembrane protein structure predictions. Cellular and Molecular Life Sciences, 2022, 79, 73.	5.4	77
45	Family business: the multidrug-resistance related protein (MRP) ABC transporter genes in Arabidopsis thaliana. Planta, 2002, 216, 107-119.	3.2	76
46	Os<scp>ABCB</scp>14 functions in auxin transport and iron homeostasis in rice (Oryza) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 T	5.7	75
47	TÃªte-Ã-tÃªte: the function of FKBPs in plant development. Trends in Plant Science, 2007, 12, 465-473.	8.8	67
48	Structure and mechanism of ATP-dependent phospholipid transporters. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 461-475.	2.4	64
49	7-Rhamnosylated Flavonols Modulate Homeostasis of the Plant Hormone Auxin and Affect Plant Development. Journal of Biological Chemistry, 2016, 291, 5385-5395.	3.4	63
50	Keeping it all together: auxinâ€“actin crosstalk in plant development. Journal of Experimental Botany, 2015, 66, 4983-4998.	4.8	62
51	A novel miR167a-OsARF6-OsAUX3 module regulates grain length and weight in rice. Molecular Plant, 2021, 14, 1683-1698.	8.3	61
52	The cyclophilin A DIAGEOTROPICA gene affects auxin transport in both root and shoot to control lateral root formation. Development (Cambridge), 2015, 142, 712-21.	2.5	57
53	The auxin influx carrier, OsAUX3, regulates rice root development and responses to aluminium stress. Plant, Cell and Environment, 2019, 42, 1125-1138.	5.7	57
54	A substrate of the ABC transporter PEN3 stimulates bacterial flagellin (flg22)-induced callose deposition in Arabidopsis thaliana. Journal of Biological Chemistry, 2019, 294, 6857-6870.	3.4	55

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55	Plant Lessons: Exploring ABCB Functionality Through Structural Modeling. Frontiers in Plant Science, 2012, 2, 108.	3.6	46
56	<scp>HSP</scp>90 and coâ€chaperones: a multitaskersâ€™ view on plant hormone biology. FEBS Letters, 2019, 593, 1415-1430.	2.8	43
57	A transportome-scale amiRNA-based screen identifies redundant roles of Arabidopsis ABCB6 and ABCB20 in auxin transport. Nature Communications, 2018, 9, 4204.	12.8	42
58	Flavonol-induced changes in PIN2 polarity and auxin transport in the Arabidopsis thaliana rol1-2 mutant require phosphatase activity. Scientific Reports, 2017, 7, 41906.	3.3	41
59	Early stages of legumeâ€“rhizobia symbiosis are controlled by ABCG-mediated transport of active cytokinins. Nature Plants, 2021, 7, 428-436.	9.3	34
60	ABA homeostasis and long-distance translocation are redundantly regulated by ABCG ABA importers. Science Advances, 2021, 7, eabf6069.	10.3	34
61	What is apical and what is basal in plant root development?. Trends in Plant Science, 2005, 10, 409-411.	8.8	30
62	Molecular Cloning of a P-type ATPase Gene from the Cyanobacterium Synechocystis sp. PCC 6803. Journal of Molecular Biology, 1993, 234, 1284-1289.	4.2	29
63	Learning from each other: ABC transporter regulation by protein phosphorylation in plant and mammalian systems. Biochemical Society Transactions, 2015, 43, 966-974.	3.4	29
64	ABCG transporters export cutin precursors for the formation of the plant cuticle. Current Biology, 2021, 31, 2111-2123.e9.	3.9	28
65	Master and servant: Regulation of auxin transporters by FKBPs and cyclophilins. Plant Science, 2016, 245, 1-10.	3.6	27
66	Auxin-transporting ABC transporters are defined by a conserved D/E-P motif regulated by a prolylisomerase. Journal of Biological Chemistry, 2020, 295, 13094-13105.	3.4	27
67	Wounding of Arabidopsis halleri leaves enhances cadmium accumulation that acts as a defense against herbivory. BioMetals, 2015, 28, 521-528.	4.1	25
68	Potentiometric sensor for the measurement of Cd2+ transport in yeast and plants. Analytical Biochemistry, 2005, 347, 10-16.	2.4	23
69	The AGC kinase, PINOID, blocks interactive ABCB/PIN auxin transport. Plant Signaling and Behavior, 2012, 7, 1515-1517.	2.4	22
70	SHADE AVOIDANCE 4 Is Required for Proper Auxin Distribution in the Hypocotyl. Plant Physiology, 2017, 173, 788-800.	4.8	22
71	ABCG36/PEN3/PDR8 Is an Exporter of the Auxin Precursor, Indole-3-Butyric Acid, and Involved in Auxin-Controlled Development. Frontiers in Plant Science, 2019, 10, 899.	3.6	22
72	The Twisted Dwarf's ABC. Plant Signaling and Behavior, 2006, 1, 277-280.	2.4	20

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73	Tomato ATP-Binding Cassette Transporter SlABCB4 Is Involved in Auxin Transport in the Developing Fruit. Plants, 2018, 7, 65.	3.5	20
74	Expression of <scp>TWISTED DWARF</scp>1 lacking its inâ€plane membrane anchor leads to increased cell elongation and hypermorphic growth. Plant Journal, 2014, 77, 108-118.	5.7	19
75	Systems approaches reveal that ABCB and PIN proteins mediate co-dependent auxin efflux. Plant Cell, 2022, 34, 2309-2327.	6.6	19
76	Expression and characterization of a Synechocystis PCC 6803 P-type ATPase in E. coli plasma membranes. Biochimica Et Biophysica Acta - Biomembranes, 1998, 1368, 267-275.	2.6	16
77	A twist in the ABC: regulation of ABC transporter trafficking and transport by FK506â€binding proteins. FEBS Letters, 2020, 594, 3986-4000.	2.8	15
78	Arabidopsis BTB/POZ protein-dependent PENETRATION3 trafficking and disease susceptibility. Nature Plants, 2017, 3, 854-858.	9.3	14
79	Non-steroidal Anti-inflammatory Drugs Target TWISTED DWARF1-Regulated Actin Dynamics and Auxin Transport-Mediated Plant Development. Cell Reports, 2020, 33, 108463.	6.4	11
80	Complementation of the embryo-lethal T-DNA insertion mutant of AUXIN-BINDING-PROTEIN 1 (ABP1) with abp1 point mutated versions reveals crosstalk of ABP1 and phytochromes. Journal of Experimental Botany, 2015, 66, 403-418.	4.8	10
81	Seeing is better than believing: visualization of membrane transport in plants. Current Opinion in Plant Biology, 2018, 46, 104-112.	7.1	10
82	Linking the evolution of plant transporters to their functions. Frontiers in Plant Science, 2014, 4, 547.	3.6	8
83	Arabidopsis TWISTED DWARF1 regulates stamen elongation by differential activation of ABCB1,19-mediated auxin transport. Journal of Experimental Botany, 2022, 73, 4818-4831.	4.8	8
84	OsRLR4 binds to the OsAUX1 promoter to negatively regulate primary root development in rice. Journal of Integrative Plant Biology, 2022, 64, 118-134.	8.5	7
85	NMR assignments of the FKBP-type PPIase domain of FKBP42 from Arabidopsis thaliana. Biomolecular NMR Assignments, 2012, 6, 185-188.	0.8	6
86	It Takes More Than Two to Tango: Regulation of Plant ABC Transporters. Signaling and Communication in Plants, 2014, , 241-270.	0.7	4
87	Cotranscription of a GTPase gene from the cyanobacterium Synechocystis PCC 6803 and a P-type Ca2+-ATPase gene. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1996, 1309, 189-193.	2.4	3
88	Expression of a prokaryotic P-type ATPase in E. coli plasma membranes and purification by Ni2+-affinity chromatography. Biological Procedures Online, 1998, 1, 70-80.	2.9	3
89	Getting to the Right Side. Plant Physiology, 2016, 172, 2081-2081.	4.8	3
90	Evolution of membrane signaling and trafficking in plants. Frontiers in Plant Science, 2013, 4, 40.	3.6	1

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91	Regulation of Polar Auxin Transport by Proteinâ€“Protein Interactions. Signaling and Communication in Plants, 2013, , 155-178.	0.7	1
92	Cooperation Between Auxin and Actin During the Process of Plant Polar Growth. Plant Cell Monographs, 2019, , 101-123.	0.4	1
93	NSAIDs Target TWISTED DWARF1-Regulated Actin Dynamics and Auxin Transport-Mediated Plant Development. SSRN Electronic Journal, 0, , .	0.4	0
94	Editorial: Translation Regulation and Protein Folding. Frontiers in Plant Science, 2022, 13, 858794.	3.6	0