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	OsRLR4 binds to the <i>OsAUX1</i> promoter to negatively regulate primary root development in rice. Journal of Integrative Plant Biology, 2022, 64, 118-134.	8.5	7
2	Ins and outs of AlphaFold2 transmembrane protein structure predictions. Cellular and Molecular Life Sciences, 2022, 79, 73.	5.4	77
3	Systems approaches reveal that ABCB and PIN proteins mediate co-dependent auxin efflux. Plant Cell, 2022, 34, 2309-2327.	6.6	19
4	Editorial: Translation Regulation and Protein Folding. Frontiers in Plant Science, 2022, 13, 858794.	3.6	0
5	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
6	Early stages of legumeâ€“rhizobia symbiosis are controlled by ABCG-mediated transport of active cytokinins. Nature Plants, 2021, 7, 428-436.	9.3	34
7	ABCG transporters export cutin precursors for the formation of the plant cuticle. Current Biology, 2021, 31, 2111-2123.e9.	3.9	28
8	A novel miR167a-OsARF6-OsAUX3 module regulates grain length and weight in rice. Molecular Plant, 2021, 14, 1683-1698.	8.3	61
9	ABA homeostasis and long-distance translocation are redundantly regulated by ABCG ABA importers. Science Advances, 2021, 7, eabf6069.	10.3	34
10	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
11	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
12	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
13	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
14	<scp>HSP</scp>90 and coâ€chaperones: a multitaskersâ€™ view on plant hormone biology. FEBS Letters, 2019, 593, 1415-1430.	2.8	43
15	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
16	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
17	Cooperation Between Auxin and Actin During the Process of Plant Polar Growth. Plant Cell Monographs, 2019, , 101-123.	0.4	1
18	Seeing is better than believing: visualization of membrane transport in plants. Current Opinion in Plant Biology, 2018, 46, 104-112.	7.1	10

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19	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
20	Tomato ATP-Binding Cassette Transporter SlABCB4 Is Involved in Auxin Transport in the Developing Fruit. Plants, 2018, 7, 65.	3.5	20
21	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
22	Arabidopsis BTB/POZ protein-dependent PENETRATION3 trafficking and disease susceptibility. Nature Plants, 2017, 3, 854-858.	9.3	14
23	A Critical View on ABC Transporters and Their Interacting Partners in Auxin Transport. Plant and Cell Physiology, 2017, 58, 1601-1614.	3.1	118
24	SHADE AVOIDANCE 4 Is Required for Proper Auxin Distribution in the Hypocotyl. Plant Physiology, 2017, 173, 788-800.	4.8	22
25	Plant hormone transporters: what we know and what we would like to know. BMC Biology, 2017, 15, 93.	3.8	129
26	TWISTED DWARF1 Mediates the Action of Auxin Transport Inhibitors on Actin Cytoskeleton Dynamics. Plant Cell, 2016, 28, 930-948.	6.6	88
27	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
28	Plant development regulated by cytokinin sinks. Science, 2016, 353, 1027-1030.	12.6	141
29	Master and servant: Regulation of auxin transporters by FKBPs and cyclophilins. Plant Science, 2016, 245, 1-10.	3.6	27
30	Getting to the Right Side. Plant Physiology, 2016, 172, 2081-2081.	4.8	3
31	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
32	The auxin transporter, Os<scp>AUX</scp>1, is involved in primary root and root hair elongation and in Cd stress responses in rice (<i>OryzaÂsativa</i> L.). Plant Journal, 2015, 83, 818-830.	5.7	144
33	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
34	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
35	Keeping it all together: auxinâ€“actin crosstalk in plant development. Journal of Experimental Botany, 2015, 66, 4983-4998.	4.8	62
36	Wounding of Arabidopsis halleri leaves enhances cadmium accumulation that acts as a defense against herbivory. BioMetals, 2015, 28, 521-528.	4.1	25

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37	The auxin response factor, <scp>OsARF</scp>19, controls rice leaf angles through positively regulating <scp><i>OsGH</i></scp><i>3â€5</i> and <scp><i>OsBRI</i></scp><i>1</i>. Plant, Cell and Environment, 2015, 38, 638-654.	5.7	181
38	Structure and mechanism of ATP-dependent phospholipid transporters. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 461-475.	2.4	64
39	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
40	Linking the evolution of plant transporters to their functions. Frontiers in Plant Science, 2014, 4, 547.	3.6	8
41	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
42	The interâ€kingdom volatile signal indole promotes root development by interfering with auxin signalling. Plant Journal, 2014, 80, 758-771.	5.7	162
43	Auxin transport during root gravitropism: transporters and techniques. Plant Biology, 2014, 16, 50-57.	3.8	78
44	Os<scp>ABCB</scp>14 functions in auxin transport and iron homeostasis in rice (<i>Oryza) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 T	5.7	75
45	Directional Auxin Transport Mechanisms in Early Diverging Land Plants. Current Biology, 2014, 24, 2786-2791.	3.9	113
46	It Takes More Than Two to Tango: Regulation of Plant ABC Transporters. Signaling and Communication in Plants, 2014, , 241-270.	0.7	4
47	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
48	Evolution of membrane signaling and trafficking in plants. Frontiers in Plant Science, 2013, 4, 40.	3.6	1
49	<i>Arabidopsis</i> TWISTED DWARF1 Functionally Interacts with Auxin Exporter ABCB1 on the Root Plasma Membrane Â. Plant Cell, 2013, 25, 202-214.	6.6	83
50	Regulation of Polar Auxin Transport by Proteinâ€"Protein Interactions. Signaling and Communication in Plants, 2013, , 155-178.	0.7	1
51	The AGC kinase, PINOID, blocks interactive ABCB/PIN auxin transport. Plant Signaling and Behavior, 2012, 7, 1515-1517.	2.4	22
52	Arabidopsis ABCB21 is a Facultative Auxin Importer/Exporter Regulated by Cytoplasmic Auxin Concentration. Plant and Cell Physiology, 2012, 53, 2090-2100.	3.1	132
53	NMR assignments of the FKBP-type PPIase domain of FKBP42 from Arabidopsis thaliana. Biomolecular NMR Assignments, 2012, 6, 185-188.	0.8	6
54	ER-localized auxin transporter PIN8 regulates auxin homeostasis and male gametophyte development in Arabidopsis. Nature Communications, 2012, 3, 941.	12.8	233

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55	Plant Lessons: Exploring ABCB Functionality Through Structural Modeling. Frontiers in Plant Science, 2012, 2, 108.	3.6	46
56	A novel putative auxin carrier family regulates intracellular auxin homeostasis in plants. Nature, 2012, 485, 119-122.	27.8	345
57	Regulation of ABCB1/PGP1-catalysed auxin transport by linker phosphorylation. EMBO Journal, 2012, 31, 2965-2980.	7.8	114
58	Flavonols Accumulate Asymmetrically and Affect Auxin Transport in Arabidopsis Â Â Â. Plant Physiology, 2011, 156, 585-595.	4.8	167
59	<i>Arabidopsis PIS1</i> 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
60	Arsenic tolerance in <i>Arabidopsis</i> 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
61	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
62	<i>Arabidopsis</i> PCR2 Is a Zinc Exporter Involved in Both Zinc Extrusion and Long-Distance Zinc Transport. Plant Cell, 2010, 22, 2237-2252.	6.6	170
63	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
64	ABCB19/PGP19 stabilises PIN1 in membrane microdomains in Arabidopsis. Plant Journal, 2009, 57, 27-44.	5.7	239
65	Subcellular homeostasis of phytohormone auxin is mediated by the ER-localized PIN5 transporter. Nature, 2009, 459, 1136-1140.	27.8	462
66	Ectopic expression of Arabidopsis ABC transporter MRP7 modifies cadmium root-to-shoot transport and accumulation. Environmental Pollution, 2009, 157, 2781-2789.	7.5	113
67	Plant ABC proteins â€“ a unified nomenclature and updated inventory. Trends in Plant Science, 2008, 13, 151-159.	8.8	652
68	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
69	Flavonoids Redirect PIN-mediated Polar Auxin Fluxes during Root Gravitropic Responses. Journal of Biological Chemistry, 2008, 283, 31218-31226.	3.4	187
70	Interactions of PIN and PGP auxin transport mechanisms. Biochemical Society Transactions, 2007, 35, 137-141.	3.4	94
71	TÃªte-Ã-tÃªte: the function of FKBPs in plant development. Trends in Plant Science, 2007, 12, 465-473.	8.8	67
72	Interactions among PIN-FORMED and P-Glycoprotein Auxin Transporters in Arabidopsis. Plant Cell, 2007, 19, 131-147.	6.6	387

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73	PIN Proteins Perform a Rate-Limiting Function in Cellular Auxin Efflux. Science, 2006, 312, 914-918.	12.6	805
74	The ABC of auxin transport: The role of p-glycoproteins in plant development. FEBS Letters, 2006, 580, 1094-1102.	2.8	353
75	The Twisted Dwarf's ABC. Plant Signaling and Behavior, 2006, 1, 277-280.	2.4	20
76	Immunophilin-like TWISTED DWARF1 Modulates Auxin Efflux Activities of Arabidopsis P-glycoproteins*. Journal of Biological Chemistry, 2006, 281, 30603-30612.	3.4	181
77	Potentiometric sensor for the measurement of Cd2+ transport in yeast and plants. Analytical Biochemistry, 2005, 347, 10-16.	2.4	23
78	Cellular efflux of auxin catalyzed by the Arabidopsis MDR/PGP transporter AtPGP1. Plant Journal, 2005, 44, 179-194.	5.7	496
79	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
80	What is apical and what is basal in plant root development?. Trends in Plant Science, 2005, 10, 409-411.	8.8	30
81	ArabidopsisImmunophilin-like TWD1 Functionally Interacts with Vacuolar ABC Transporters. Molecular Biology of the Cell, 2004, 15, 3393-3405.	2.1	99
82	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
83	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
84	Family business: the multidrug-resistance related protein (MRP) ABC transporter genes in Arabidopsis thaliana. Planta, 2002, 216, 107-119.	3.2	76
85	Multifunctionality of plant ABC transporters â€“ more than just detoxifiers. Planta, 2002, 214, 345-355.	3.2	394
86	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
87	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
88	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
89	Molecular aspects of higher plant P-type Ca2+-ATPases. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1465, 52-78.	2.6	178
90	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

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91	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
92	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
93	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
94	NSAIDs Target TWISTED DWARF1-Regulated Actin Dynamics and Auxin Transport-Mediated Plant Development. SSRN Electronic Journal, 0, , .	0.4	0