Julie E Gray

List of Publications by Year
in descending order

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110
papers

10,073
citations

36303
51
h-index

37204
96
g-index

118
all docs

118
docs citations

118
times ranked

8432
citing authors

#	ARTICLE	IF	CITATIONS
1	Abscisic acid induces oscillations in guard-cell cytosolic free calcium that involve phosphoinositide-specific phospholipase C. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 1779-1784.	7.1	369
2	Self-incompatibility in Nicotiana alata involves degradation of pollen rRNA. Nature, 1990, 347, 757-760.	27.8	362
3	The HIC signalling pathway links CO2 perception to stomatal development. Nature, 2000, 408, 713-716.	27.8	356
4	Impact of Stomatal Density and Morphology on Water-Use Efficiency in a Changing World. Frontiers in Plant Science, 2019, 10, 225.	3.6	353
5	The Signaling Peptide EPF2 Controls Asymmetric Cell Divisions during Stomatal Development. Current Biology, 2009, 19, 864-869.	3.9	346
6	Inheritance and effect on ripening of antisense polygalacturonase genes in transgenic tomatoes. Plant Molecular Biology, 1990, 14, 369-379.	3.9	339
7	Rice with reduced stomatal density conserves water and has improved drought tolerance under future climate conditions. New Phytologist, 2019, 221, 371-384.	7.3	330
8	Nitric Oxide Sensing in Plants Is Mediated by Proteolytic Control of Group VII ERF Transcription Factors. Molecular Cell, 2014, 53, 369-379.	9.7	312
9	Influence of environmental factors on stomatal development. New Phytologist, 2008, 178, 9-23.	7.3	300
10	Increasing waterâ€use efficiency directly through genetic manipulation of stomatal density. New Phytologist, 2015, 207, 188-195.	7.3	270
11	Reducing Stomatal Density in Barley Improves Drought Tolerance without Impacting on Yield. Plant Physiology, 2017, 174, 776-787.	4.8	267
12	Genetic manipulation of stomatal density influences stomatal size, plant growth and tolerance to restricted water supply across a growth carbon dioxide gradient. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 547-555.	4.0	263
13	Molecular biology of fruit ripening and its manipulation with antisense genes. Plant Molecular Biology, 1992, 19, 69-87.	3.9	217
14	The Arabidopsis Cyclophilin Gene Family. Plant Physiology, 2004, 134, 1268-1282.	4.8	212
15	Elevated CO 2 -Induced Responses in Stomata Require ABA and ABA Signaling. Current Biology, 2015, 25, 2709-2716.	3.9	201
16	Self-incompatibility: a self-recognition system in plants. Science, 1990, 250, 937-941.	12.6	195
17	Regulatory Mechanism Controlling Stomatal Behavior Conserved across 400 Million Years of Land Plant Evolution. Current Biology, 2011, 21, 1025-1029.	3.9	180
18	CRISPR-Cas9 and CRISPR-Cpf1 mediated targeting of a stomatal developmental gene EPFL9 in rice. Plant Cell Reports, 2017, 36, 745-757.	5.6	170

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19	phytochrome B and PIF4 Regulate Stomatal Development in Response to Light Quantity. Current Biology, 2009, 19, 229-234.	3.9	164
20	Land Plants Acquired Active Stomatal Control Early in Their Evolutionary History. Current Biology, 2011, 21, 1030-1035.	3.9	162
21	Origins and Evolution of Stomatal Development. Plant Physiology, 2017, 174, 624-638.	4.8	154
22	Manipulating stomatal density enhances drought tolerance without deleterious effect on nutrient uptake. New Phytologist, 2015, 208, 336-341.	7.3	151
23	Systemic signalling of environmental cues in Arabidopsis leaves. Journal of Experimental Botany, 2006, 57, 329-341.	4.8	150
24	Reduced stomatal density in bread wheat leads to increased water-use efficiency. Journal of Experimental Botany, 2019, 70, 4737-4748.	4.8	144
25	Origin and function of stomata in the moss Physcomitrella patens. Nature Plants, 2016, 2, 16179.	9.3	138
26	The signalling peptide EPFL9 is a positive regulator of stomatal development. New Phytologist, 2010, 186, 609-614.	7.3	137
27	The influence of stomatal morphology and distribution on photosynthetic gas exchange. Plant Journal, 2020, 101, 768-779.	5.7	137
28	Stomatal Function Requires Pectin De-methyl-esterification of the Guard Cell Wall. Current Biology, 2016, 26, 2899-2906.	3.9	131
29	Phospholipase C is required for the control of stomatal aperture by ABA. Plant Journal, 2003, 34, 47-55.	5.7	130
30	Action of the Style Product of the Self-Incompatibility Gene of Nicotiana alata (S-RNase) on in Vitro-Grown Pollen Tubes.. Plant Cell, 1991, 3, 271-283.	6.6	129
31	Molecular and Enzymatic Characterization of Three Phosphoinositide-Specific Phospholipase C Isoforms from Potato1. Plant Physiology, 1998, 116, 239-250.	4.8	123
32	The Cys-Arg/N-End Rule Pathway Is a General Sensor of Abiotic Stress in Flowering Plants. Current Biology, 2017, 27, 3183-3190.e4.	3.9	118
33	The use of transgenic and naturally occurring mutants to understand and manipulate tomato fruit ripening. Plant, Cell and Environment, 1994, 17, 557-571.	5.7	117
34	Putting the brakes on: abscisic acid as a central environmental regulator of stomatal development. New Phytologist, 2014, 202, 376-391.	7.3	117
35	Involvement of sphingosine kinase in plant cell signalling. Plant Journal, 2008, 56, 64-72.	5.7	109
36	Nicotinamidase activity is important for germination. Plant Journal, 2007, 51, 341-351.	5.7	106

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37	Molecular control of stomatal development. Biochemical Journal, 2018, 475, 441-454.	3.7	106
38	Signals from the cuticle affect epidermal cell differentiation. New Phytologist, 2003, 157, 9-23.	7.3	99
39	Plant immunophilins: functional versatility beyond protein maturation. New Phytologist, 2005, 166, 753-769.	7.3	99
40	Geneâ€specific expression and calcium activation of Arabidopsis thaliana phospholipase C isoforms. New Phytologist, 2004, 162, 643-654.	7.3	92
41	Stomatal Opening Involves Polar, Not Radial, Stiffening Of Guard Cells. Current Biology, 2017, 27, 2974-2983.e2.	3.9	89
42	Stomatal development: focusing on the grasses. Current Opinion in Plant Biology, 2018, 41, 1-7.	7.1	89
43	Expression and manipulation of <i>PHOSPHOENOLPYRUVATE CARBOXYKINASE 1</i> identifies a role for malate metabolism in stomatal closure. Plant Journal, 2012, 69, 679-688.	5.7	81
44	cDNA cloning and characterisation of novel ripening-related mRNAs with altered patterns of accumulation in the ripening inhibitor (rin) tomato ripening mutant. Plant Molecular Biology, 1993, 23, 193-207.	3.9	74
45	Differential adaptation of two varieties of common bean to abiotic stress. Journal of Experimental Botany, 2006, 57, 699-709.	4.8	67
46	Gene expression during tomato ripening. Philosophical Transactions of the Royal Society of London Series B, Biological Sciences, 1986, 314, 399-410.	2.3	63
47	Mesophyll porosity is modulated by the presence of functional stomata. Nature Communications, 2019, 10, 2825.	12.8	63
48	Rice plants overexpressing OsEPF1 show reduced stomatal density and increased root cortical aerenchyma formation. Scientific Reports, 2019, 9, 5584.	3.3	63
49	<i>Cr</i><scp>RLK</scp>1L receptorâ€like kinases <scp>HERK</scp>1 and <scp>ANJEA</scp> are female determinants of pollen tube reception. EMBO Reports, 2020, 21, e48466.	4.5	62
50	Rice <scp>SUMO</scp> protease <i>Overly Tolerant to Salt 1</i> targets the transcription factor, Osb<scp>ZIP</scp>23 to promote drought tolerance in rice. Plant Journal, 2017, 92, 1031-1043.	5.7	59
51	Distinct branches of the Nâ€end rule pathway modulate the plant immune response. New Phytologist, 2019, 221, 988-1000.	7.3	59
52	Ca2+ signalling in stomatal guard cells. Biochemical Society Transactions, 2000, 28, 476-481.	3.4	58
53	An ancestral stomatal patterning module revealed in the non-vascular land plant <i>Physcomitrella patens</i>. Development (Cambridge), 2016, 143, 3306-14.	2.5	56
54	Ripening-related occurrence of phosphoenolpyruvate carboxykinase in tomato fruit. Plant Molecular Biology, 2001, 47, 499-506.	3.9	54

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55	A role for the cuticular waxes in the environmental control of stomatal development. New Phytologist, 2002, 153, 433-439.	7.3	54
56	Early evolutionary acquisition of stomatal control and development gene signalling networks. Current Opinion in Plant Biology, 2013, 16, 638-646.	7.1	54
57	Conserved Roles of CrRLK1L Receptor-Like Kinases in Cell Expansion and Reproduction from Algae to Angiosperms. Frontiers in Plant Science, 2016, 07, 1269.	3.6	54
58	Models and Mechanisms of Stomatal Mechanics. Trends in Plant Science, 2018, 23, 822-832.	8.8	53
59	Phospho enol pyruvate Carboxykinase in Arabidopsis: Changes in Gene Expression, Protein and Activity during Vegetative and Reproductive Development. Plant and Cell Physiology, 2007, 48, 441-450.	3.1	51
60	A role for glutamate decarboxylase during tomato ripening: the characterisation of a cDNA encoding a putative glutamate decarboxylase with a calmodulin-binding site. Plant Molecular Biology, 1995, 27, 1143-1151.	3.9	50
61	Coordinate Regulation of Phosphoenolpyruvate Carboxylase and Phosphoenolpyruvate Carboxykinase by Light and CO2 during C4 Photosynthesis. Plant Physiology, 2007, 144, 479-486.	4.8	49
62	Formation of the Stomatal Outer Cuticular Ledge Requires a Guard Cell Wall Proline-Rich Protein. Plant Physiology, 2017, 174, 689-699.	4.8	49
63	Pores for Thought: Can Genetic Manipulation of Stomatal Density Protect Future Rice Yields?. Frontiers in Plant Science, 2019, 10, 1783.	3.6	49
64	Genome-wide transcriptomic analysis of the sporophyte of the moss Physcomitrella patens. Journal of Experimental Botany, 2013, 64, 3567-3581.	4.8	48
65	The effects of manipulating phospholipase C on guard cell ABA-signalling. Journal of Experimental Botany, 2003, 55, 199-204.	4.8	47
66	Calciumâ€based signalling systems in guard cells. New Phytologist, 2001, 151, 109-120.	7.3	45
67	Control and manipulation of gene expression during tomato fruit ripening. Plant Molecular Biology, 1989, 13, 303-311.	3.9	43
68	The <scp>BIG</scp> protein distinguishes the process of <scp>CO</scp>₂â€induced stomatal closure from the inhibition of stomatal opening by <scp>CO</scp>₂. New Phytologist, 2018, 218, 232-241.	7.3	43
69	Arabidopsis AtCYP20-2 Is a Light-Regulated Cyclophilin-Type Peptidyl-Prolyl cis-trans Isomerase Associated with the Photosynthetic Membranes. Plant Physiology, 2004, 134, 1244-1247.	4.8	37
70	Bacterial infection systemically suppresses stomatal density. Plant, Cell and Environment, 2019, 42, 2411-2421.	5.7	37
71	Action of the Style Product of the Self-Incompatibility Gene of Nicotiana alata (S-RNase) on in Vitro-Grown Pollen Tubes. Plant Cell, 1991, 3, 271.	6.6	36
72	The relationship between pyridine nucleotides and seed dormancy. New Phytologist, 2009, 181, 62-70.	7.3	35

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73	Expression of a proteasome alpha-type subunit gene during tobacco development and senescence. , 1999, 39, 325-333.		34
74	Plant Development: YODA the Stomatal Switch. Current Biology, 2004, 14, R488-R490.	3.9	31
75	Balancing Water Uptake and Loss through the Coordinated Regulation of Stomatal and Root Development. PLoS ONE, 2016, 11, e0156930.	2.5	30
76	A histidine decarboxylase-like mRNA is involved in tomato fruit ripening. Plant Molecular Biology, 1993, 23, 627-631.	3.9	29
77	The control of specificity in guard cell signal transduction. Philosophical Transactions of the Royal Society B: Biological Sciences, 1998, 353, 1489-1494.	4.0	28
78	Guard Cells: Transcription Factors Regulate Stomatal Movements. Current Biology, 2005, 15, R593-R595.	3.9	27
79	Light-Induced Stomatal Opening Is Affected by the Guard Cell Protein Kinase APK1b. PLoS ONE, 2014, 9, e97161.	2.5	27
80	Plant Development: Three Steps for Stomata. Current Biology, 2007, 17, R213-R215.	3.9	24
81	Pollination-enhanced expression of a receptor-like protein kinase related gene in tobacco styles. , 1997, 33, 653-665.		21
82	Ca2+signalling in stomatal guard cells. Biochemical Society Transactions, 2000, 28, 476-81.	3.4	19
83	Induced Genetic Variations in Stomatal Density and Size of Rice Strongly Affects Water Use Efficiency and Responses to Drought Stresses. Frontiers in Plant Science, 2022, 13, .	3.6	17
84	The manipulation and modification of tomato fruit ripening by expression of antisense RNA in transgenic plants. Euphytica, 1995, 85, 193-202.	1.2	13
85	Stomata and Sporophytes of the Model Moss Physcomitrium patens. Frontiers in Plant Science, 2020, 11, 643.	3.6	13
86	Stomatal Closure: The Old Guard Takes Up the SLAC. Current Biology, 2015, 25, R271-R273.	3.9	12
87	Stomatal responses to carbon dioxide and light require abscisic acid catabolism in <i>Arabidopsis</i>. Interface Focus, 2021, 11, 20200036.	3.0	12
88	Intercellular Peptide Signals Regulate Plant Meristematic Cell Fate Decisions. Science Signaling, 2008, 1, pe53.	3.6	11
89	Rice Stomatal Mega-Papillae Restrict Water Loss and Pathogen Entry. Frontiers in Plant Science, 2021, 12, 677839.	3.6	11
90	Small EPIDERMAL PATTERNING FACTOR-LIKE2 peptides regulate awn development in rice. Plant Physiology, 2022, 190, 516-531.	4.8	10

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91	Selfâ€incompatibility: insights through microscopy. Journal of Microscopy, 1992, 166, 137-148.	1.8	9
92	Sequence of a Cloned Tomato Ubiquitin Conjugating Enzyme. Plant Physiology, 1993, 103, 1471-1472.	4.8	8
93	ABA signalling: A messenger's FIERY fate. Current Biology, 2001, 11, R968-R970.	3.9	8
94	How the stomate got his pore: very long chain fatty acids and a structural cell wall protein sculpt the guard cell outer cuticular ledge. New Phytologist, 2020, 228, 1698-1700.	7.3	8
95	Ethylene Genes and Fruit Ripening. , 1995, , 372-394.		7
96	Dynamic thermal imaging confirms local but not fast systemic <scp>ABA</scp> responses. Plant, Cell and Environment, 2021, 44, 885-899.	5.7	6
97	BASL and EPF2 act independently to regulate asymmetric divisions during stomatal development. Plant Signaling and Behavior, 2010, 5, 278-280.	2.4	4
98	The manipulation and modification of tomato fruit ripening by expression of antisense RNA in transgenic plants. Developments in Plant Breeding, 1995, , 193-202.	0.2	4
99	A role for nuclear localised proteasomes in mediating auxin action. Plant Journal, 2002, 30, 691-698.	5.7	3
100	113 Conservation of proteasome structure and activity between plants and other eukaryotes. Biochemical Society Transactions, 1998, 26, S395-S395.	3.4	2
101	New Phytologist next generation scientists. New Phytologist, 2014, 204, 736-737.	7.3	2
102	Molecular biology of fruit ripening and its manipulation with antisense genes. , 1992, , 69-87.		2
103	Altered Gene Expression, Leaf Senescence, and Fruit Ripening by Inhibiting Ethylene Synthesis with EFE-Antisense Genes. Current Plant Science and Biotechnology in Agriculture, 1993, , 82-89.	0.0	2
104	Self-Incompatibility as a Model for Cell-Cell Recognition in Flowering Plants. , 1991, , 527-536.		1
105	Peptides Modulating Development of Specialized Cells. Signaling and Communication in Plants, 2012, , 93-106.	0.7	1
106	Leaf temperature responses to ABA and dead bacteria in wheat and Arabidopsis. Plant Signaling and Behavior, 2021, 16, 1899471.	2.4	1
107	The Molecular Biology of Fruit Ripening. , 1994, , 287-299.		1
108	115 Phosphoinositide signal transduction in guard cells. Biochemical Society Transactions, 1998, 26, S397-S397.	3.4	0

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109	Control of stomatal development. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2008, 150, S144.	1.8	0
110	Corrigendum to â€œEarly evolutionary acquisition of stomatal control and development gene signalling networksâ€•[Curr. Opin. Plant Biol. 16 (5) (2013) 638â€“646]. Current Opinion in Plant Biology, 2014, 18, 117-118.	7.1	0