Marc R Knight

List of Publications by Year
in descending order

84 papers	13,000 citations	34076 52 h-index	58549 82 g-index
84 all docs	84 docs citations	84 times ranked	10618 citing authors

#	Article	IF	Citations
1	Transgenic plant aequorin reports the effects of touch and cold-shock and elicitors on cytoplasmic calcium. Nature, 1991, 352, 524-526.	13.7	1,132
2	Abiotic stress signalling pathways: specificity and cross-talk. Trends in Plant Science, 2001, 6, 262-267.	4.3	889
3	Calcium signalling in Arabidopsis thaliana responding to drought and salinity. Plant Journal, 1997, 12, 1067-1078.	2.8	833
4	Protection against Heat Stress-Induced Oxidative Damage in Arabidopsis Involves Calcium, Abscisic Acid, Ethylene, and Salicylic Acid. Plant Physiology, 2002, 128, 682-695.	2.3	824
5	Heat Stress Phenotypes of Arabidopsis Mutants Implicate Multiple Signaling Pathways in the Acquisition of Thermotolerance Â. Plant Physiology, 2005, 138, 882-897.	2.3	747
6	OXI1 kinase is necessary for oxidative burst-mediated signalling in Arabidopsis. Nature, 2004, 427, 858-861.	13.7	556
7	The RPM1 plant disease resistance gene facilitates a rapid and sustained increase in cytosolic calcium that is necessary for the oxidative burst and hypersensitive cell death. Plant Journal, 2000, 23, 441-450.	2.8	441
8	Cell-type-specific calcium responses to drought, salt and cold in theArabidopsisroot. Plant Journal, 2000, 23, 267-278.	2.8	353
9	Lowâ€temperature perception leading to gene expression and cold tolerance in higher plants. New Phytologist, 2012, 195, 737-751.	3.5	325
10	Oxidative Stress-Induced Calcium Signaling in Arabidopsis. Plant Physiology, 2004, 135, 1471-1479.	2.3	310
11	Rapid Transcriptome Changes Induced by Cytosolic Ca2+ Transients Reveal ABRE-Related Sequences as Ca2+-Responsive cis Elements in Arabidopsis. Plant Cell, 2006, 18, 2733-2748.	3.1	277
12	Heat-Shock-Induced Changes in Intracellular Ca2+Level in Tobacco Seedlings in Relation to Thermotolerance1. Plant Physiology, 1998, 116, 429-437.	2.3	276
13	Abscisic Acid Induces CBF Gene Transcription and Subsequent Induction of Cold-Regulated Genes via the CRT Promoter Element. Plant Physiology, 2004, 135, 1710-1717.	2.3	256
14	Temperature sensing by plants: the primary characteristics of signal perception and calcium response. Plant Journal, 1999, 18, 491-497.	2.8	230
15	ERF5 and ERF6 Play Redundant Roles as Positive Regulators of JA/Et-Mediated Defense against Botrytis cinerea in Arabidopsis. PLoS ONE, 2012, 7, e35995.	1.1	225
16	Bacterial Polysaccharides Suppress Induced Innate Immunity by Calcium Chelation. Current Biology, 2008, 18, 1078-1083.	1.8	212
17	The sfr6 Mutation in Arabidopsis Suppresses Low-Temperature Induction of Genes Dependent on the CRT/DRE Sequence Motif. Plant Cell, 1999, 11, 875-886.	3.1	203
18	Self-Reporting Arabidopsis Expressing pH and [Ca2+] Indicators Unveil Ion Dynamics in the Cytoplasm and in the Apoplast under Abiotic Stress. Plant Physiology, 2004, 134, 898-908.	2.3	200

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19	Distinct Calcium Signaling Pathways Regulate Calmodulin Gene Expression in Tobacco. Plant Physiology, 1999, 121, 705-714.	2.3	196
20	Transcriptomic analysis of Sorghum bicolor responding to combined heat and drought stress. BMC Genomics, 2014, 15, 456.	1.2	188
21	Calmodulinâ€binding transcription activator (CAMTA) 3 mediates biotic defense responses in <i>Arabidopsis</i>. FEBS Letters, 2008, 582, 943-948.	1.3	183
22	Cold Calcium Signaling in Arabidopsis Involves Two Cellular Pools and a Change in Calcium Signature after Acclimation. Plant Cell, 1996, 8, 489.	3.1	182
23	Mechanical signalling, calcium and plant form. Plant Molecular Biology, 1994, 26, 1329-1341.	2.0	177
24	The Identification of Genes Involved in the Stomatal Response to Reduced Atmospheric Relative Humidity. Current Biology, 2006, 16, 882-887.	1.8	171
25	Calcium: just a chemical switch?. Current Opinion in Plant Biology, 2003, 6, 500-506.	3.5	164
26	A history of stress alters drought calcium signalling pathways inArabidopsis. Plant Journal, 1998, 16, 681-687.	2.8	161
27	Salt and osmotic stress cause rapid increases inArabidopsis thalianacGMP levels. FEBS Letters, 2004, 569, 317-320.	1.3	160
28	Mitochondrial and Cytosolic Calcium Dynamics Are Differentially Regulated in Plants. Plant Physiology, 2003, 133, 21-24.	2.3	133
29	ROS perception in Arabidopsis thaliana: the ozone-induced calcium response. Plant Journal, 2005, 41, 615-626.	2.8	129
30	Control of free calcium in plant cell nuclei. Nature, 2000, 405, 754-755.	13.7	126
31	Dissection of the ozoneâ€induced calcium signature. Plant Journal, 1999, 17, 575-579.	2.8	122
32	Second Messengers Mediate Increases in Cytosolic Calcium in Tobacco Protoplasts. Plant Physiology, 1998, 117, 1023-1030.	2.3	106
33	A role for glycine in the gating of plant NMDA-like receptors. Plant Journal, 2003, 35, 800-810.	2.8	103
34	The <i>Arabidopsis</i> Mediator Complex Subunits MED16, MED14, and MED2 Regulate Mediator and RNA Polymerase II Recruitment to CBF-Responsive Cold-Regulated Genes. Plant Cell, 2014, 26, 465-484.	3.1	101
35	Oxidative Signals in Tobacco Increase Cytosolic Calcium. Plant Cell, 1994, 6, 1301.	3.1	100
36	The Mediator subunit SFR6/MED16 controls defence gene expression mediated by salicylic acid and jasmonate responsive pathways. New Phytologist, 2012, 195, 217-230.	3.5	100

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37	The calcium transporter ANNEXIN1 mediates coldâ€induced calcium signaling and freezing tolerance in plants. EMBO Journal, 2021, 40, e104559.	3.5	99
38	Imaging spatial and cellular characteristics of low temperature calcium signature after cold acclimation in Arabidopsis. Journal of Experimental Botany, 2000, 51, 1679-1686.	2.4	97
39	Identification of SFR6, a key component in cold acclimation acting postâ€translationally on CBF function. Plant Journal, 2009, 58, 97-108.	2.8	96
40	Calcium signatures are decoded by plants to give specific gene responses. New Phytologist, 2013, 197, 690-693.	3.5	92
41	Recombinant aequorin as a probe for cytosolic free Ca2+inEscherichia coli. FEBS Letters, 1991, 282, 405-408.	1.3	91
42	Organization of cytoskeleton controls the changes in cytosolic calcium of cold-shocked Nicotiana plumbaginifolia protoplasts. Cell Calcium, 1997, 22, 413-420.	1.1	90
43	Calmodulin as a Potential Negative Regulator of ArabidopsisCOR Gene Expression. Plant Physiology, 2002, 128, 1169-1172.	2.3	90
44	Ceramides induce programmed cell death in Arabidopsis cells in a calcium-dependent manner. Biological Chemistry, 2005, 386, 161-166.	1.2	90
45	Calmodulin-binding transcription activator 1 mediates auxin signaling and responds to stresses in Arabidopsis. Planta, 2010, 232, 165-178.	1.6	87
46	The sfr6 mutant of Arabidopsis is defective in transcriptional activation via CBF/DREB1 and DREB2 and shows sensitivity to osmotic stress. Plant Journal, 2003, 34, 395-406.	2.8	86
47	Transcriptomic Analysis Reveals Calcium Regulation of Specific Promoter Motifs in<i>Arabidopsis</i>Â. Plant Cell, 2011, 23, 4079-4095.	3.1	86
48	A toolset of aequorin expression vectors for in planta studies of subcellular calcium concentrations in Arabidopsis thaliana. Journal of Experimental Botany, 2012, 63, 1751-1761.	2.4	76
49	Calcium imaging shows differential sensitivity to cooling and communication in luminous transgenic plants. Cell Calcium, 1996, 19, 211-218.	1.1	75
50	OXI1 protein kinase is required for plant immunity against Pseudomonas syringae in Arabidopsis. Journal of Experimental Botany, 2009, 60, 3727-3735.	2.4	72
51	The deposition of suberin lamellae determines the magnitude of cytosolic Ca2+ elevations in root endodermal cells subjected to cooling. Plant Journal, 2002, 30, 457-465.	2.8	66
52	crinkled leaves 8 - A mutation in the large subunit of ribonucleotide reductase - leads to defects in leaf development and chloroplast division in Arabidopsis thaliana. Plant Journal, 2007, 50, 118-127.	2.8	58
53	Getting the most out of publicly available Tâ€DNA insertion lines. Plant Journal, 2008, 56, 665-677.	2.8	56
54	Chapter 14 Recombinant Aequorin Methods for Intracellular Calcium Measurement in Plants. Methods in Cell Biology, 1995, 49, 201-216.	0.5	51

#	Article	IF	Citations
55	Low-pH-mediated elevations in cytosolic calcium are inhibited by aluminium: a potential mechanism for aluminium toxicity. Plant Journal, 1999, 18, 643-650.	2.8	49
56	Increases in Absolute Temperature Stimulate Free Calcium Concentration Elevations in the Chloroplast. Plant and Cell Physiology, 2019, 60, 538-548.	1.5	43
57	Transcriptomic analysis comparing stay-green and senescent<i>Sorghum bicolor</i>lines identifies a role for proline biosynthesis in the stay-green trait. Journal of Experimental Botany, 2015, 66, 7061-7073.	2.4	41
58	Predicting plant immunity gene expression by identifying the decoding mechanism of calcium signatures. New Phytologist, 2018, 217, 1598-1609.	3.5	40
59	Leaves of isopreneâ€emitting tobacco plants maintain PSII stability at high temperatures. New Phytologist, 2019, 223, 1307-1318.	3.5	38
60	The Potato Nucleotide-binding Leucine-rich Repeat (NLR) Immune Receptor Rx1 Is a Pathogen-dependent DNA-deforming Protein. Journal of Biological Chemistry, 2015, 290, 24945-24960.	1.6	36
61	The Î±-subunit of the heterotrimeric G-protein affects jasmonate responses in Arabidopsis thaliana. Journal of Experimental Botany, 2009, 60, 1991-2003.	2.4	35
62	Combining modelling and experimental approaches to explain how calcium signatures are decoded by calmodulinâ€binding transcription activators (<scp>CAMTA</scp>s) to produce specific gene expression responses. New Phytologist, 2015, 208, 174-187.	3.5	34
63	MUR1â€mediated cellâ€wall fucosylation is required for freezing tolerance in <i>Arabidopsis thaliana</i>. New Phytologist, 2019, 224, 1518-1531.	3.5	32
64	OXI1 kinase plays a key role in resistance of Arabidopsis towards aphids (Myzus persicae). Transgenic Research, 2018, 27, 355-366.	1.3	31
65	OsSFR6 is a functional rice orthologue of SENSITIVE TO FREEZINGâ€6 and can act as a regulator of <i>COR</i> gene expression, osmotic stress and freezing tolerance in Arabidopsis. New Phytologist, 2011, 191, 984-995.	3.5	29
66	A C-Repeat Binding Factor Transcriptional Activator (CBF/DREB1) from European Bilberry (Vaccinium) Tj ETQq0 0 0 rgBT /Overlock 10 Tf e54119.	1.1	29
67	Mechanically Stimulated TCH3 Gene Expression in Arabidopsis Involves Protein Phosphorylation and EIN6 Downstream of Calcium. Plant Physiology, 2002, 128, 1402-1409.	2.3	25
68	New ideas on root hair growth appear from the flanks. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20649-20650.	3.3	25
69	The sfr6 Mutation in Arabidopsis Suppresses Low-Temperature Induction of Genes Dependent on the CRT/DRE Sequence Motif. Plant Cell, 1999, 11, 875.	3.1	21
70	Design Principle for Decoding Calcium Signals to Generate Specific Gene Expression Via Transcription. Plant Physiology, 2020, 182, 1743-1761.	2.3	21
71	The phosphoproteome of Arabidopsis plants lacking the oxidative signalâ€inducible1 (OXI1) protein kinase. New Phytologist, 2011, 190, 49-56.	3.5	19
72	Genes encoding the small subunit of ribulose 1,5-bisphosphate carboxylase/oxygenase in Phaseolus vulgaris L.: nucleotide sequence of cDNA clones and initial studies of expression. Plant Molecular Biology, 1992, 18, 567-579.	2.0	17

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73	Ammonium uptake and cellular alkalisation in roots of Arabidopsis thaliana: The involvement of cytoplasmic calcium1. Physiologia Plantarum, 2000, 110, 518-523.	2.6	14
74	Recombinant aequorin methods for measurement of intracellular calcium in plants. , 1997, , 1-22.		11
75	Ontogenetic regulation and photoregulation of members of the Phaseolus vulgaris L. rbcS gene family. Planta, 1996, 198, 31-8.	1.6	9
76	Basal stomatal aperture is regulated by GA-DELLAs in Arabidopsis. Journal of Plant Physiology, 2020, 250, 153182.	1.6	9
77	Chloroplast calcium signalling regulates thermomemory. Journal of Plant Physiology, 2021, 264, 153470.	1.6	8
78	Ammonium uptake and cellular alkalisation in roots of Arabidopsis thaliana: The involvement of cytoplasmic calcium. Physiologia Plantarum, 2000, 110, 518.	2.6	8
79	Expression levels of inositol phosphorylceramide synthase modulate plant responses to biotic and abiotic stress in Arabidopsis thaliana. PLoS ONE, 2019, 14, e0217087.	1.1	7
80	Non-invasive monitoring of temperature stress in Arabidopsis thaliana roots, using ion amperometry. Analytical Methods, 2012, 4, 1656.	1.3	6
81	Plant growth promotion by the interaction of a novel synthetic small molecule with GAâ€DELLA function. Plant Direct, 2022, 6, e398.	0.8	5
82	Modelling and experimental analysis of the role of interacting cytosolic and vacuolar pools in shaping low temperature calcium signatures in plant cells. Molecular BioSystems, 2012, 8, 2205.	2.9	4
83	The molecular biological approach to understanding freezing-tolerance in the model plant, Arabidopsis thaliana. Cell and Molecular Response To Stress, 2000, 1, 245-258.	0.4	3
84	Mechanical signalling, calcium and plant form. , 1994, , 93-105.		2