Sheng Luan

List of Publications by Year
in descending order

127	9,592	51	93
papers	citations	h-index	g-index
		36203	40881

131	131	131	8194
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Calmodulins and Calcineurin Bâ€“like Proteins. Plant Cell, 2002, 14, S389-S400.	3.1	619
2	The CBLâ€“CIPK network in plant calcium signaling. Trends in Plant Science, 2009, 14, 37-42.	4.3	491
3	A calmodulin-gated calcium channel links pathogen patterns to plant immunity. Nature, 2019, 572, 131-135.	13.7	320
4	Novel Protein Kinases Associated with Calcineurin Bâ€“like Calcium Sensors in Arabidopsis. Plant Cell, 1999, 11, 2393-2405.	3.1	288
5	Inward Potassium Channel in Guard Cells As a Target for Polyamine Regulation of Stomatal Movements. Plant Physiology, 2000, 124, 1315-1326.	2.3	261
6	A Novel Family of Magnesium Transport Genes in Arabidopsis. Plant Cell, 2001, 13, 2761-2775.	3.1	261
7	AtKUP1: A Dual-Affinity K+ Transporter from Arabidopsis. Plant Cell, 1998, 10, 63-73.	3.1	257
8	PROTEINPHOSPHATASES INPLANTS. Annual Review of Plant Biology, 2003, 54, 63-92.	8.6	248
9	A DTX/MATE-Type Transporter Facilitates Abscisic Acid Efflux and Modulates ABA Sensitivity and Drought Tolerance in Arabidopsis. Molecular Plant, 2014, 7, 1522-1532.	3.9	238
10	Tonoplast CBLâ€“CIPK calcium signaling network regulates magnesium homeostasis in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3134-3139.	3.3	208
11	DUF221 proteins are a family of osmosensitive calcium-permeable cation channels conserved across eukaryotes. Cell Research, 2014, 24, 632-635.	5.7	198
12	Interaction Specificity of Arabidopsis Calcineurin B-Like Calcium Sensors and Their Target Kinases. Plant Physiology, 2000, 124, 1844-1853.	2.3	192
13	Calcium spikes, waves and oscillations in plant development and biotic interactions. Nature Plants, 2020, 6, 750-759.	4.7	188
14	Potassium nutrition, sodium toxicity, and calcium signaling: connections through the CBLâ€“CIPK network. Current Opinion in Plant Biology, 2009, 12, 339-346.	3.5	187
15	FERONIA interacts with ABI2-type phosphatases to facilitate signaling cross-talk between abscisic acid and RALF peptide in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5519-27.	3.3	185
16	The CBLâ€“CIPK Calcium Signaling Network: Unified Paradigm from 20 Years of Discoveries. Trends in Plant Science, 2020, 25, 604-617.	4.3	181
17	A vacuolar phosphate transporter essential for phosphate homeostasis in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6571-8.	3.3	173
18	Regulation of calcium and magnesium homeostasis in plants: from transporters to signaling network. Current Opinion in Plant Biology, 2017, 39, 97-105.	3.5	170

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19	Site- and kinase-specific phosphorylation-mediated activation of SLAC1, a guard cell anion channel stimulated by abscisic acid. Science Signaling, 2014, 7, ra86.	1.6	168
20	Molecular Characterization of a Tyrosine-Specific Protein Phosphatase Encoded by a Stress-Responsive Gene in Arabidopsis. Plant Cell, 1998, 10, 849-857.	3.1	160
21	ATMPK4, an Arabidopsis Homolog of Mitogen-Activated Protein Kinase, Is Activated in Vitro by AtMEK1 through Threonine Phosphorylation. Plant Physiology, 2000, 122, 1301-1310.	2.3	147
22	A molecular pathway for CO2 response in Arabidopsis guard cells. Nature Communications, 2015, 6, 6057.	5.8	145
23	Receptor kinase complex transmits RALF peptide signal to inhibit root growth in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8326-E8334.	3.3	138
24	Identification of a dual-specificity protein phosphatase that inactivates a MAP kinase fromArabidopsis. Plant Journal, 1998, 16, 581-589.	2.8	132
25	Calcineurin B-Like Protein-Interacting Protein Kinase CIPK21 Regulates Osmotic and Salt Stress Responses in Arabidopsis. Plant Physiology, 2015, 169, 780-792.	2.3	126
26	Identification of vacuolar phosphate efflux transporters in land plants. Nature Plants, 2019, 5, 84-94.	4.7	115
27	<i>Arabidopsis</i>Transporter MGT6 Mediates Magnesium Uptake and Is Required for Growth under Magnesium Limitation. Plant Cell, 2014, 26, 2234-2248.	3.1	108
28	<scp>FERONIA</scp> receptor kinase interacts with <scp><i>S</i></scp>â€adenosylmethionine synthetase and suppresses <scp><i>S</i></scp>â€adenosylmethionine production and ethylene biosynthesis in <scp><i>A</i></scp><i>rabidopsis</i>. Plant, Cell and Environment, 2015, 38, 2566-2574.	2.8	98
29	Calcium Signaling Mechanisms Across Kingdoms. Annual Review of Cell and Developmental Biology, 2021, 37, 311-340.	4.0	98
30	Voltage-Dependent K+ Channels as Targets of Osmosensing in Guard Cells. Plant Cell, 1998, 10, 1957-1970.	3.1	94
31	Dynamic Interactions of Plant CNGC Subunits and Calmodulins Drive Oscillatory Ca2+ Channel Activities. Developmental Cell, 2019, 48, 710-725.e5.	3.1	92
32	Magnesium transporter AtMGT9 is essential for pollen development in Arabidopsis. Cell Research, 2009, 19, 887-898.	5.7	91
33	A Mitochondrial Magnesium Transporter Functions in Arabidopsis Pollen Development. Molecular Plant, 2008, 1, 675-685.	3.9	87
34	Molecular characterization of a plant FKBP12 that does not mediate action of FK506 and rapamycin. Plant Journal, 1998, 15, 511-519.	2.8	85
35	Anion channel <scp>SLAH</scp>3 functions in nitrateâ€dependent alleviation of ammonium toxicity in <scp><i>A</i></scp><i>rabidopsis</i>. Plant, Cell and Environment, 2015, 38, 474-486.	2.8	84
36	A Prominent Role for RCAR3-Mediated ABA Signaling in Response to Pseudomonas syringae pv. tomato DC3000 Infection in Arabidopsis. Plant and Cell Physiology, 2014, 55, 1691-1703.	1.5	83

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37	FERONIA Receptor Kinase at the Crossroads of Hormone Signaling and Stress Responses. Plant and Cell Physiology, 2017, 58, 1143-1150.	1.5	83
38	Two glutamate- and pH-regulated Ca ²⁺ channels are required for systemic wound signaling in <i>Arabidopsis</i>. Science Signaling, 2020, 13, .	1.6	77
39	Tyrosine phosphorylation in plant cell signaling. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11567-11569.	3.3	76
40	A calcium signalling network activates vacuolar K+ remobilization to enable plant adaptation to low-K environments. Nature Plants, 2020, 6, 384-393.	4.7	76
41	Comparative phylogenomics of the CBL-CIPK calcium-decoding network in the moss Physcomitrella, Arabidopsis, and other green lineages. Frontiers in Plant Science, 2014, 5, 187.	1.7	72
42	Inner Envelope CHLOROPLAST MANGANESE TRANSPORTER 1 Supports Manganese Homeostasis and Phototrophic Growth in Arabidopsis. Molecular Plant, 2018, 11, 943-954.	3.9	71
43	An endoplasmic reticulum magnesium transporter is essential for pollen development in Arabidopsis. Plant Science, 2015, 231, 212-220.	1.7	70
44	Two tonoplast MATE proteins function as turgor-regulating chloride channels in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2036-E2045.	3.3	70
45	Nematode-Encoded RALF Peptide Mimics Facilitate Parasitism of Plants through the FERONIA Receptor Kinase. Molecular Plant, 2020, 13, 1434-1454.	3.9	67
46	Calcium-dependent protein kinase CPK31 interacts with arsenic transporter AtNIP1;1 and regulates arsenite uptake in Arabidopsis thaliana. PLoS ONE, 2017, 12, e0173681.	1.1	66
47	EBP1 nuclear accumulation negatively feeds back on FERONIA-mediated RALF1 signaling. PLoS Biology, 2018, 16, e2006340.	2.6	66
48	A protein phosphatase 2C, AP2C1, interacts with and negatively regulates the function of CIPK9 under potassium-deficient conditions in Arabidopsis. Journal of Experimental Botany, 2018, 69, 4003-4015.	2.4	65
49	Arabidopsis CNGC14 Mediates Calcium Influx Required for Tip Growth in Root Hairs. Molecular Plant, 2017, 10, 1004-1006.	3.9	61
50	A transceptorâ€“channel complex couples nitrate sensing to calcium signaling in Arabidopsis. Molecular Plant, 2021, 14, 774-786.	3.9	60
51	PSB27: A thylakoid protein enabling <i>Arabidopsis</i> to adapt to changing light intensity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1613-1618.	3.3	58
52	Receptor protein kinase FERONIA controls leaf starch accumulation by interacting with glyceraldehyde-3-phosphate dehydrogenase. Biochemical and Biophysical Research Communications, 2015, 465, 77-82.	1.0	57
53	Overexpression of Pyrabactin Resistance-Like Abscisic Acid Receptors Enhances Drought, Osmotic, and Cold Tolerance in Transgenic Poplars. Frontiers in Plant Science, 2017, 8, 1752.	1.7	57
54	Danger-Associated Peptides Close Stomata by OST1-Independent Activation of Anion Channels in Guard Cells. Plant Cell, 2018, 30, 1132-1146.	3.1	57

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55	A plasma membrane transporter coordinates phosphate reallocation and grain filling in cereals. Nature Genetics, 2021, 53, 906-915.	9.4	55
56	A Calcium Sensor-Regulated Protein Kinase, CALCINEURIN B-LIKE PROTEIN-INTERACTING PROTEIN KINASE19, Is Required for Pollen Tube Growth and Polarity Â. Plant Physiology, 2015, 167, 1351-1360.	2.3	53
57	The Maize MID-COMPLEMENTING ACTIVITY Homolog CELL NUMBER REGULATOR13/NARROW ODD DWARF Coordinates Organ Growth and Tissue Patterning. Plant Cell, 2017, 29, 474-490.	3.1	52
58	ZxAKT1 is essential for K⁺ uptake and K⁺/Na⁺ homeostasis in the succulent xerophyte <i>Zygophyllum xanthoxylum</i>. Plant Journal, 2017, 90, 48-60.	2.8	51
59	Lossâ€ofâ€function mutation of the calcium sensor <scp>CBL</scp>1 increases aluminum sensitivity in <i>Arabidopsis</i>. New Phytologist, 2017, 214, 830-841.	3.5	50
60	The inward-rectifying K+ channel SsAKT1 is a candidate involved in K+ uptake in the halophyte Suaeda salsa under saline condition. Plant and Soil, 2015, 395, 173-187.	1.8	49
61	Calcineurin B-Like Proteins CBL4 and CBL10 Mediate Two Independent Salt Tolerance Pathways in Arabidopsis. International Journal of Molecular Sciences, 2019, 20, 2421.	1.8	49
62	Functional expression and characterization of a plant K + channel gene in a plant cell model. Plant Journal, 1998, 13, 857-865.	2.8	48
63	Internal Aluminum Block of Plant Inward K⁺ Channels. Plant Cell, 2001, 13, 1453-1466.	3.1	48
64	<i>AtMGT7</i>: An <i>Arabidopsis</i> Gene Encoding a Lowâ€Affinity Magnesium Transporter. Journal of Integrative Plant Biology, 2008, 50, 1530-1538.	4.1	45
65	Overexpression of Poplar Pyrabactin Resistance-Like Abscisic Acid Receptors Promotes Abscisic Acid Sensitivity and Drought Resistance in Transgenic Arabidopsis. PLoS ONE, 2016, 11, e0168040.	1.1	43
66	Transport and homeostasis of potassium and phosphate: limiting factors for sustainable crop production. Journal of Experimental Botany, 2016, 68, erw444.	2.4	42
67	The calcium sensor CBL7 modulates plant responses to low nitrate in Arabidopsis. Biochemical and Biophysical Research Communications, 2015, 468, 59-65.	1.0	40
68	<i>PHOTOâ€SENSITIVE LEAF ROLLING 1</i> encodes a polygalacturonase that modifies cell wall structure and drought tolerance in rice. New Phytologist, 2021, 229, 890-901.	3.5	40
69	Plant immunophilins: a review of their structure-function relationship. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 2145-2158.	1.1	38
70	Rice cyclophilin OsCYP18â€2 is translocated to the nucleus by an interaction with SKIP and enhances drought tolerance in rice and <i>Arabidopsis</i>. Plant, Cell and Environment, 2015, 38, 2071-2087.	2.8	37
71	Magnesium Transporter MGT6 Plays an Essential Role in Maintaining Magnesium Homeostasis and Regulating High Magnesium Tolerance in Arabidopsis. Frontiers in Plant Science, 2018, 9, 274.	1.7	37
72	Kinase SnRK1.1 regulates nitrate channel SLAH3 engaged in nitrate-dependent alleviation of ammonium toxicity. Plant Physiology, 2021, 186, 731-749.	2.3	37

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73	Arabidopsis choline transporter-like 1 (CTL1) regulates secretory trafficking of auxin transporters to control seedling growth. PLoS Biology, 2017, 15, e2004310.	2.6	35
74	An ABC transporter complex encoded by Aluminum Sensitive 3 and NAP3 is required for phosphate deficiency responses in Arabidopsis. Biochemical and Biophysical Research Communications, 2015, 463, 18-23.	1.0	33
75	FAIR: A Call to Make Published Data More Findable, Accessible, Interoperable, and Reusable. Molecular Plant, 2018, 11, 1105-1108.	3.9	31
76	Danger-Associated Peptides Interact with PIN-Dependent Local Auxin Distribution to Inhibit Root Growth in Arabidopsis. Plant Cell, 2019, 31, 1767-1787.	3.1	31
77	Vacuolar Phosphate Transporters Contribute to Systemic Phosphate Homeostasis Vital for Reproductive Development in Arabidopsis. Plant Physiology, 2019, 179, 640-655.	2.3	30
78	Pronounced Phenotypic Changes in Transgenic Tobacco Plants Overexpressing Sucrose Synthase May Reveal a Novel Sugar Signaling Pathway. Frontiers in Plant Science, 2015, 6, 1216.	1.7	29
79	<i>Arabidopsis</i> calcineurin B-like proteins differentially regulate phosphorylation activity of CBL-interacting protein kinase 9. Biochemical Journal, 2018, 475, 2621-2636.	1.7	29
80	The RING finger E3 ligases PIR1 and PIR2 mediate PP2CA degradation to enhance abscisic acid response in Arabidopsis. Plant Journal, 2019, 100, 473-486.	2.8	29
81	Vacuolar SPX-MFS transporters are essential for phosphate adaptation in plants. Plant Signaling and Behavior, 2016, 11, e1213474.	1.2	27
82	<i>Os<scp>GATA</scp>7</i> modulates brassinosteroidsâ€mediated growth regulation and influences architecture and grain shape. Plant Biotechnology Journal, 2018, 16, 1261-1264.	4.1	26
83	Plant Membrane Transport Research inÂtheÂPost-genomic Era. Plant Communications, 2020, 1, 100013.	3.6	26
84	Receptor kinase FERONIA regulates flowering time in Arabidopsis. BMC Plant Biology, 2020, 20, 26.	1.6	26
85	Golgiâ€localized cation/proton exchangers regulate ionic homeostasis and skotomorphogenesis in Arabidopsis. Plant, Cell and Environment, 2019, 42, 673-687.	2.8	25
86	Danger-Associated Peptide Regulates Root Immune Responses and Root Growth by Affecting ROS Formation in Arabidopsis. International Journal of Molecular Sciences, 2020, 21, 4590.	1.8	24
87	AtPiezo Plays an Important Role in Root Cap Mechanotransduction. International Journal of Molecular Sciences, 2021, 22, 467.	1.8	24
88	A Defective Vacuolar Proton Pump Enhances Aluminum Tolerance by Reducing Vacuole Sequestration of Organic Acids. Plant Physiology, 2019, 181, 743-761.	2.3	22
89	Nitrate transporter NRT1.1 and anion channel SLAH3 form a functional unit to regulate nitrateâ€dependent alleviation of ammonium toxicity. Journal of Integrative Plant Biology, 2022, 64, 942-957.	4.1	22
90	Protein tyrosine phosphatases in higher plants. New Phytologist, 2001, 151, 155-164.	3.5	20

#	ARTICLE	IF	CITATIONS
91	Genetically encoded calcium indicators for fluorescence imaging in the moss <i>Physcomitrella</i>:<scp> GC</scp>a<scp>MP</scp>3 provides a bright new look. Plant Biotechnology Journal, 2017, 15, 1235-1237.	4.1	20
92	Molecular identification of the magnesium transport gene family in Brassica napus. Plant Physiology and Biochemistry, 2019, 136, 204-214.	2.8	20
93	A Golgi-localized manganese transporter functions in pollen tube tip growth to control male fertility in Arabidopsis. Plant Communications, 2021, 2, 100178.	3.6	20
94	Vacuolar Phosphate Transporter 1 (VPT1) Affects Arsenate Tolerance by Regulating Phosphate Homeostasis in Arabidopsis. Plant and Cell Physiology, 2018, 59, 1345-1352.	1.5	18
95	A Thylakoid Membrane Protein Functions Synergistically with GUN5 in Chlorophyll Biosynthesis. Plant Communications, 2020, 1, 100094.	3.6	17
96	Constant change: dynamic regulation of membrane transport by calcium signalling networks keeps plants in tune with their environment. Plant, Cell and Environment, 2016, 39, 467-481.	2.8	16
97	Conserved mechanism for vacuolar magnesium sequestration in yeast and plant cells. Nature Plants, 2022, 8, 181-190.	4.7	16
98	Rice Na+-Permeable Transporter OsHAK12 Mediates Shoots Na+ Exclusion in Response to Salt Stress. Frontiers in Plant Science, 2021, 12, 771746.	1.7	16
99	Vacuolar Proton Pyrophosphatase Is Required for High Magnesium Tolerance in Arabidopsis. International Journal of Molecular Sciences, 2018, 19, 3617.	1.8	15
100	Two tonoplast proton pumps function in Arabidopsis embryo development. New Phytologist, 2020, 225, 1606-1617.	3.5	14
101	Rice Potassium Transporter OsHAK8 Mediates K+ Uptake and Translocation in Response to Low K+ Stress. Frontiers in Plant Science, 2021, 12, 730002.	1.7	14
102	The Rice High-Affinity K+ Transporter OsHKT2;4 Mediates Mg2+ Homeostasis under High-Mg2+ Conditions in Transgenic Arabidopsis. Frontiers in Plant Science, 2017, 8, 1823.	1.7	13
103	Four plasma membrane-localized MGR transporters mediate xylem Mg2+ loading for root-to-shoot Mg2+ translocation in Arabidopsis. Molecular Plant, 2022, 15, 805-819.	3.9	13
104	From Receptor-Like Kinases to Calcium Spikes: What Are the Missing Links?. Molecular Plant, 2014, 7, 1501-1504.	3.9	12
105	Recent Advances in Genome-wide Analyses of Plant Potassium Transporter Families. Current Genomics, 2021, 22, 164-180.	0.7	11
106	Genome-Wide Analysis of the Five Phosphate Transporter Families in Camelina sativa and Their Expressions in Response to Low-P. International Journal of Molecular Sciences, 2020, 21, 8365.	1.8	10
107	Rhythms of magnesium. Nature Plants, 2020, 6, 742-743.	4.7	10
108	Evaluation of the utility of genomic information to improve genetic evaluation of feed efficiency traits of the Pacific white shrimp Litopenaeus vannamei. Aquaculture, 2020, 527, 735421.	1.7	9

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109	Using single-step genomic best linear unbiased prediction to improve the efficiency of genetic evaluation on body weight in Macrobrachium rosenbergii. Aquaculture, 2020, 528, 735577.	1.7	9
110	AtFKBP53: a chimeric histone chaperone with functional nucleoplasmin and PPIase domains. Nucleic Acids Research, 2020, 48, 1531-1550.	6.5	8
111	Type A2 BTB Members Decrease the ABA Response during Seed Germination by Affecting the Stability of SnRK2.3 in Arabidopsis. International Journal of Molecular Sciences, 2020, 21, 3153.	1.8	8
112	Potential Networks of Nitrogen-Phosphorus-Potassium Channels and Transporters in Arabidopsis Roots at a Single Cell Resolution. Frontiers in Plant Science, 2021, 12, 689545.	1.7	8
113	An Arabidopsis vasculature distributed metal tolerance protein facilitates xylem magnesium diffusion to shoots under highâ€magnesium environments. Journal of Integrative Plant Biology, 2021, , .	4.1	8
114	Two magnesium transporters in the chloroplast inner envelope essential for thylakoid biogenesis in Arabidopsis. New Phytologist, 2022, 236, 464-478.	3.5	8
115	Peptide signaling in plants: finding partners is the key. Cell Research, 2016, 26, 755-756.	5.7	7
116	Loss of mature D1 leads to compromised CP43 assembly in Arabidopsis thaliana. BMC Plant Biology, 2021, 21, 106.	1.6	6
117	Arabidopsis Seedling Lethal 1 Interacting With Plastid-Encoded RNA Polymerase Complex Proteins Is Essential for Chloroplast Development. Frontiers in Plant Science, 2020, 11, 602782.	1.7	6
118	The Shaker Type Potassium Channel, GORK, Regulates Abscisic Acid Signaling in Arabidopsis. Plant Pathology Journal, 2019, 35, 684-691.	0.7	6
119	A survey of the pyrabactin resistance-like abscisic acid receptor gene family in poplar. Plant Signaling and Behavior, 2017, 12, e1356966.	1.2	5
120	An ICln homolog contributes to osmotic and lowâ€nitrate tolerance by enhancing nitrate accumulation in Arabidopsis. Plant, Cell and Environment, 2021, 44, 1580-1595.	2.8	5
121	Structural and functional analyses of the PPIase domain of <i>ArabidopsisÂthaliana</i> CYP71 reveal its catalytic activity toward histone H3. FEBS Letters, 2021, 595, 145-154.	1.3	4
122	Feed competition reduces heritable variation for body weight in Litopenaeus vannamei. Genetics Selection Evolution, 2020, 52, 45.	1.2	3
123	Choline transporter-like 1 (CTL1) positively regulates apical hook development in etiolated Arabidopsis seedlings. Biochemical and Biophysical Research Communications, 2020, 525, 491-497.	1.0	2
124	Evidence for the involvement of <i>AtPiezo</i> in mechanical responses. Plant Signaling and Behavior, 2021, 16, 1889252.	1.2	2
125	Paradigms and Networks for Intracellular Calcium Signaling in Plant Cells. , 0, , 163-188.		0
126	Reducing the Common Environmental Effect on Litopenaeus vannamei Body Weight by Rearing Communally at Early Developmental Stages and Using a Reconstructed Pedigree. Journal of Ocean University of China, 2020, 19, 923-930.	0.6	0

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127	Crystal packing reveals rapamycin-mediated homodimerization of an FK506-binding domain. International Journal of Biological Macromolecules, 2022, 206, 670-680.	3.6	0