Sheng Luan

List of Publications by Year in Descending Order

122 papers	6,529 citations	41 h-index	79 g-index
131 ext. papers	8,439 ext. citations	9.3 avg, IF	6.21 L-index

#	Paper	IF	Citations
122	Four Plasma Membrane-Localized MGR Transporters Mediate Xylem Mg Loading for Root-to-Shoot Mg Translocation in Arabidopsis.. *Molecular Plant*, **2022**,	14.4	2
121	A plasma membrane transporter coordinates phosphate reallocation and grain filling in cereals. *Nature Genetics*, **2021**, 53, 906-915	36.3	12
120	A Golgi-localized manganese transporter functions in pollen tube tip growth to control male fertility in. *Plant Communications*, **2021**, 2, 100178	9	4
119	A transceptor-channel complex couples nitrate sensing to calcium signaling in Arabidopsis. *Molecular Plant*, **2021**, 14, 774-786	14.4	18
118	Potential Networks of Nitrogen-Phosphorus-Potassium Channels and Transporters in Arabidopsis Roots at a Single Cell Resolution. *Frontiers in Plant Science*, **2021**, 12, 689545	6.2	0
117	Structural and functional analyses of the PPIase domain of Arabidopsis thaliana CYP71 reveal its catalytic activity toward histone H3. *FEBS Letters*, **2021**, 595, 145-154	3.8	0
116	PHOTO-SENSITIVE LEAF ROLLING 1 encodes a polygalacturonase that modifies cell wall structure and drought tolerance in rice. *New Phytologist*, **2021**, 229, 890-901	9.8	10
115	An ICln homolog contributes to osmotic and low-nitrate tolerance by enhancing nitrate accumulation in Arabidopsis. *Plant, Cell and Environment*, **2021**, 44, 1580-1595	8.4	1
114	Evidence for the involvement of in mechanical responses. *Plant Signaling and Behavior*, **2021**, 16, 1889252	2.5	1
113	Kinase SnRK1.1 regulates nitrate channel SLAH3 engaged in nitrate-dependent alleviation of ammonium toxicity. *Plant Physiology*, **2021**, 186, 731-749	6.6	6
112	Loss of mature D1 leads to compromised CP43 assembly in Arabidopsis thaliana. *BMC Plant Biology*, **2021**, 21, 106	5.3	1
111	Recent Advances in Genome-wide Analyses of Plant Potassium Transporter Families.. *Current Genomics*, **2021**, 22, 164-180	2.6	1
110	Calcium Signaling Mechanisms Across Kingdoms. *Annual Review of Cell and Developmental Biology*, **2021**, 37, 311-340	12.6	12
109	Rice Potassium Transporter OsHAK8 Mediates K Uptake and Translocation in Response to Low K Stress. *Frontiers in Plant Science*, **2021**, 12, 730002	6.2	4
108	AtPiezo Plays an Important Role in Root Cap Mechanotransduction. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	11
107	Rice Na-Permeable Transporter OsHAK12 Mediates Shoots Na Exclusion in Response to Salt Stress.. *Frontiers in Plant Science*, **2021**, 12, 771746	6.2	0
106	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	4.4	2

105	Type A2 BTB Members Decrease the ABA Response during Seed Germination by Affecting the Stability of SnRK2.3 in. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	2
104	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	4.4	4
103	Rhythms of magnesium. *Nature Plants*, **2020**, 6, 742-743	11.5	1
102	The CBL-CIPK Calcium Signaling Network: Unified Paradigm from 20 Years of Discoveries. *Trends in Plant Science*, **2020**, 25, 604-617	13.1	70
101	A calcium signalling network activates vacuolar K remobilization to enable plant adaptation to low-K environments. *Nature Plants*, **2020**, 6, 384-393	11.5	40
100	Calcium spikes, waves and oscillations in plant development and biotic interactions. *Nature Plants*, **2020**, 6, 750-759	11.5	70
99	A Thylakoid Membrane Protein Functions Synergistically with GUN5 in Chlorophyll Biosynthesis. *Plant Communications*, **2020**, 1, 100094	9	7
98	Choline transporter-like 1 (CTL1) positively regulates apical hook development in etiolated Arabidopsis seedlings. *Biochemical and Biophysical Research Communications*, **2020**, 525, 491-497	3.4	0
97	Receptor kinase FERONIA regulates flowering time in Arabidopsis. *BMC Plant Biology*, **2020**, 20, 26	5.3	13
96	Seedling Lethal 1 Interacting With Plastid-Encoded RNA Polymerase Complex Proteins Is Essential for Chloroplast Development. *Frontiers in Plant Science*, **2020**, 11, 602782	6.2	3
95	Two tonoplast proton pumps function in Arabidopsis embryo development. *New Phytologist*, **2020**, 225, 1606-1617	9.8	7
94	AtFKBP53: a chimeric histone chaperone with functional nucleoplasmin and PPIase domains. *Nucleic Acids Research*, **2020**, 48, 1531-1550	20.1	3
93	Plant Membrane Transport Research in the Post-genomic Era. *Plant Communications*, **2020**, 1, 100013	9	13
92	Two glutamate- and pH-regulated Ca channels are required for systemic wound signaling in. *Science Signaling*, **2020**, 13,	8.8	35
91	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	1	
90	Genome-Wide Analysis of the Five Phosphate Transporter Families in and Their Expressions in Response to Low-P. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	3
89	Danger-Associated Peptide Regulates Root Immune Responses and Root Growth by Affecting ROS Formation in. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	6
88	Feed competition reduces heritable variation for body weight in Litopenaeus vannamei. *Genetics Selection Evolution*, **2020**, 52, 45	4.9	0

87	Nematode-Encoded RALF Peptide Mimics Facilitate Parasitism of Plants through the FERONIA Receptor Kinase. *Molecular Plant*, **2020**, 13, 1434-1454	14.4	26
86	The RING finger E3 ligases PIR1 and PIR2 mediate PP2CA degradation to enhance abscisic acid response in Arabidopsis. *Plant Journal*, **2019**, 100, 473-486	6.9	15
85	Molecular identification of the magnesium transport gene family in Brassica napus. *Plant Physiology and Biochemistry*, **2019**, 136, 204-214	5.4	12
84	Dynamic Interactions of Plant CNGC Subunits and Calmodulins Drive Oscillatory Ca Channel Activities. *Developmental Cell*, **2019**, 48, 710-725.e5	10.2	55
83	Danger-Associated Peptides Interact with PIN-Dependent Local Auxin Distribution to Inhibit Root Growth in Arabidopsis. *Plant Cell*, **2019**, 31, 1767-1787	11.6	12
82	Calcineurin B-Like Proteins CBL4 and CBL10 Mediate Two Independent Salt Tolerance Pathways in. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	26
81	A calmodulin-gated calcium channel links pathogen patterns to plant immunity. *Nature*, **2019**, 572, 131-135	38.4	162
80	A Defective Vacuolar Proton Pump Enhances Aluminum Tolerance by Reducing Vacuole Sequestration of Organic Acids. *Plant Physiology*, **2019**, 181, 743-761	6.6	9
79	The Shaker Type Potassium Channel, GORK, Regulates Abscisic Acid Signaling in Arabidopsis. *Plant Pathology Journal*, **2019**, 35, 684-691	2.5	3
78	Vacuolar Phosphate Transporters Contribute to Systemic Phosphate Homeostasis Vital for Reproductive Development in Arabidopsis. *Plant Physiology*, **2019**, 179, 640-655	6.6	14
77	Identification of vacuolar phosphate efflux transporters in land plants. *Nature Plants*, **2019**, 5, 84-94	11.5	53
76	Golgi-localized cation/proton exchangers regulate ionic homeostasis and skotomorphogenesis in Arabidopsis. *Plant, Cell and Environment*, **2019**, 42, 673-687	8.4	18
75	OsGATA7 modulates brassinosteroids-mediated growth regulation and influences architecture and grain shape. *Plant Biotechnology Journal*, **2018**, 16, 1261-1264	11.6	10
74	Vacuolar Phosphate Transporter 1 (VPT1) Affects Arsenate Tolerance by Regulating Phosphate Homeostasis in Arabidopsis. *Plant and Cell Physiology*, **2018**, 59, 1345-1352	4.9	12
73	Danger-Associated Peptides Close Stomata by OST1-Independent Activation of Anion Channels in Guard Cells. *Plant Cell*, **2018**, 30, 1132-1146	11.6	35
72	calcineurin B-like proteins differentially regulate phosphorylation activity of CBL-interacting protein kinase 9. *Biochemical Journal*, **2018**, 475, 2621-2636	3.8	18
71	Magnesium Transporter MGT6 Plays an Essential Role in Maintaining Magnesium Homeostasis and Regulating High Magnesium Tolerance in. *Frontiers in Plant Science*, **2018**, 9, 274	6.2	23
70	Paradigms and Networks for Intracellular Calcium Signaling in Plant Cells **2018**, 163-188		1

69	Vacuolar Proton Pyrophosphatase Is Required for High Magnesium Tolerance in. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	11
68	EBP1 nuclear accumulation negatively feeds back on FERONIA-mediated RALF1 signaling. *PLoS Biology*, **2018**, 16, e2006340	9.7	35
67	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	7	47
66	Inner Envelope CHLOROPLAST MANGANESE TRANSPORTER 1 Supports Manganese Homeostasis and Phototrophic Growth in Arabidopsis. *Molecular Plant*, **2018**, 11, 943-954	14.4	36
65	Loss-of-function mutation of the calcium sensor CBL1 increases aluminum sensitivity in Arabidopsis. *New Phytologist*, **2017**, 214, 830-841	9.8	28
64	Two tonoplast MATE proteins function as turgor-regulating chloride channels in. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E2036-E2045	11.5	53
63	Arabidopsis CNGC14 Mediates Calcium Influx Required for Tip Growth in Root Hairs. *Molecular Plant*, **2017**, 10, 1004-1006	14.4	38
62	The Maize MID-COMPLEMENTING ACTIVITY Homolog CELL NUMBER REGULATOR13/NARROW ODD DWARF Coordinates Organ Growth and Tissue Patterning. *Plant Cell*, **2017**, 29, 474-490	11.6	29
61	FERONIA Receptor Kinase at the Crossroads of Hormone Signaling and Stress Responses. *Plant and Cell Physiology*, **2017**, 58, 1143-1150	4.9	53
60	ZxAKT1 is essential for K uptake and K /Na homeostasis in the succulent xerophyte Zygophyllum xanthoxylum. *Plant Journal*, **2017**, 90, 48-60	6.9	37
59	Calcium-dependent protein kinase CPK31 interacts with arsenic transporter AtNIP1;1 and regulates arsenite uptake in Arabidopsis thaliana. *PLoS ONE*, **2017**, 12, e0173681	3.7	46
58	A survey of the pyrabactin resistance-like abscisic acid receptor gene family in poplar. *Plant Signaling and Behavior*, **2017**, 12, e1356966	2.5	5
57	Regulation of calcium and magnesium homeostasis in plants: from transporters to signaling network. *Current Opinion in Plant Biology*, **2017**, 39, 97-105	9.9	99
56	Genetically encoded calcium indicators for fluorescence imaging in the moss Physcomitrella: GCaMP3 provides a bright new look. *Plant Biotechnology Journal*, **2017**, 15, 1235-1237	11.6	16
55	Overexpression of Pyrabactin Resistance-Like Abscisic Acid Receptors Enhances Drought, Osmotic, and Cold Tolerance in Transgenic Poplars. *Frontiers in Plant Science*, **2017**, 8, 1752	6.2	28
54	The Rice High-Affinity K Transporter OsHKT2;4 Mediates Mg Homeostasis under High-Mg Conditions in Transgenic. *Frontiers in Plant Science*, **2017**, 8, 1823	6.2	9
53	Arabidopsis choline transporter-like 1 (CTL1) regulates secretory trafficking of auxin transporters to control seedling growth. *PLoS Biology*, **2017**, 15, e2004310	9.7	19
52	Transport and homeostasis of potassium and phosphate: limiting factors for sustainable crop production. *Journal of Experimental Botany*, **2017**, 68, 3091-3105	7	35

51	FERONIA interacts with ABI2-type phosphatases to facilitate signaling cross-talk between abscisic acid and RALF peptide in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E5519-27	11.5	114
50	Overexpression of Poplar Pyrabactin Resistance-Like Abscisic Acid Receptors Promotes Abscisic Acid Sensitivity and Drought Resistance in Transgenic Arabidopsis. *PLoS ONE*, **2016**, 11, e0168040	3.7	29
49	Constant change: dynamic regulation of membrane transport by calcium signalling networks keeps plants in tune with their environment. *Plant, Cell and Environment*, **2016**, 39, 467-81	8.4	13
48	Receptor kinase complex transmits RALF peptide signal to inhibit root growth in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E8326-E8334	11.5	86
47	Peptide signaling in plants: finding partners is the key. *Cell Research*, **2016**, 26, 755-6	24.7	4
46	Vacuolar SPX-MFS transporters are essential for phosphate adaptation in plants. *Plant Signaling and Behavior*, **2016**, 11, e1213474	2.5	19
45	PSB27: A thylakoid protein enabling Arabidopsis to adapt to changing light intensity. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 1613-8	11.5	31
44	Calcineurin B-Like Protein-Interacting Protein Kinase CIPK21 Regulates Osmotic and Salt Stress Responses in Arabidopsis. *Plant Physiology*, **2015**, 169, 780-92	6.6	80
43	Receptor protein kinase FERONIA controls leaf starch accumulation by interacting with glyceraldehyde-3-phosphate dehydrogenase. *Biochemical and Biophysical Research Communications*, **2015**, 465, 77-82	3.4	41
42	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	3.4	20
41	Rice cyclophilin OsCYP18-2 is translocated to the nucleus by an interaction with SKIP and enhances drought tolerance in rice and Arabidopsis. *Plant, Cell and Environment*, **2015**, 38, 2071-87	8.4	27
40	Anion channel SLAH3 functions in nitrate-dependent alleviation of ammonium toxicity in Arabidopsis. *Plant, Cell and Environment*, **2015**, 38, 474-86	8.4	59
39	Plant immunophilins: a review of their structure-function relationship. *Biochimica Et Biophysica Acta - General Subjects*, **2015**, 1850, 2145-58	4	29
38	FERONIA receptor kinase interacts with S-adenosylmethionine synthetase and suppresses S-adenosylmethionine production and ethylene biosynthesis in Arabidopsis. *Plant, Cell and Environment*, **2015**, 38, 2566-74	8.4	77
37	A calcium sensor-regulated protein kinase, CALCINEURIN B-LIKE PROTEIN-INTERACTING PROTEIN KINASE19, is required for pollen tube growth and polarity. *Plant Physiology*, **2015**, 167, 1351-60	6.6	38
36	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	4.2	25
35	The calcium sensor CBL7 modulates plant responses to low nitrate in Arabidopsis. *Biochemical and Biophysical Research Communications*, **2015**, 468, 59-65	3.4	28
34	A vacuolar phosphate transporter essential for phosphate homeostasis in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E6571-8	11.5	120

33	A molecular pathway for CO response in Arabidopsis guard cells. *Nature Communications*, **2015**, 6, 6057	17.4	103
32	Tonoplast CBL-CIPK calcium signaling network regulates magnesium homeostasis in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 3134-9	11.5	135
31	An endoplasmic reticulum magnesium transporter is essential for pollen development in Arabidopsis. *Plant Science*, **2015**, 231, 212-20	5.3	34
30	Pronounced Phenotypic Changes in Transgenic Tobacco Plants Overexpressing Sucrose Synthase May Reveal a Novel Sugar Signaling Pathway. *Frontiers in Plant Science*, **2015**, 6, 1216	6.2	18
29	A DTX/MATE-type transporter facilitates abscisic acid efflux and modulates ABA sensitivity and drought tolerance in Arabidopsis. *Molecular Plant*, **2014**, 7, 1522-32	14.4	159
28	DUF221 proteins are a family of osmosensitive calcium-permeable cation channels conserved across eukaryotes. *Cell Research*, **2014**, 24, 632-5	24.7	125
27	Arabidopsis Transporter MGT6 Mediates Magnesium Uptake and Is Required for Growth under Magnesium Limitation. *Plant Cell*, **2014**, 26, 2234-2248	11.6	72
26	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, 1691-703	4.9	56
25	From receptor-like kinases to calcium spikes: what are the missing links?. *Molecular Plant*, **2014**, 7, 1501-4	14.4	11
24	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	6.2	50
23	Site- and kinase-specific phosphorylation-mediated activation of SLAC1, a guard cell anion channel stimulated by abscisic acid. *Science Signaling*, **2014**, 7, ra86	8.8	130
22	Potassium nutrition, sodium toxicity, and calcium signaling: connections through the CBL-CIPK network. *Current Opinion in Plant Biology*, **2009**, 12, 339-46	9.9	153
21	Magnesium transporter AtMGT9 is essential for pollen development in Arabidopsis. *Cell Research*, **2009**, 19, 887-98	24.7	65
20	The CBL-CIPK network in plant calcium signaling. *Trends in Plant Science*, **2009**, 14, 37-42	13.1	397
19	A mitochondrial magnesium transporter functions in Arabidopsis pollen development. *Molecular Plant*, **2008**, 1, 675-85	14.4	67
18	AtMGT7: An Arabidopsis gene encoding a low-affinity magnesium transporter. *Journal of Integrative Plant Biology*, **2008**, 50, 1530-8	8.3	36
17	Protein phosphatases in plants. *Annual Review of Plant Biology*, **2003**, 54, 63-92	30.7	214
16	Calmodulins and calcineurin B-like proteins: calcium sensors for specific signal response coupling in plants. *Plant Cell*, **2002**, 14 Suppl, S389-400	11.6	517

15	Tyrosine phosphorylation in plant cell signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 11567-9	11.5	66
14	Protein tyrosine phosphatases in higher plants. *New Phytologist*, **2001**, 151, 155-164	9.8	18
13	A novel family of magnesium transport genes in Arabidopsis. *Plant Cell*, **2001**, 13, 2761-75	11.6	215
12	Internal Aluminum Block of Plant Inward K+ Channels. *Plant Cell*, **2001**, 13, 1453-1466	11.6	39
11	ATMPK4, an Arabidopsis homolog of mitogen-activated protein kinase, is activated in vitro by AtMEK1 through threonine phosphorylation. *Plant Physiology*, **2000**, 122, 1301-10	6.6	131
10	Inward potassium channel in guard cells as a target for polyamine regulation of stomatal movements. *Plant Physiology*, **2000**, 124, 1315-26	6.6	222
9	Interaction specificity of Arabidopsis calcineurin B-like calcium sensors and their target kinases. *Plant Physiology*, **2000**, 124, 1844-53	6.6	162
8	Novel protein kinases associated with calcineurin B-like calcium sensors in Arabidopsis. *Plant Cell*, **1999**, 11, 2393-405	11.6	262
7	Functional expression and characterization of a plant K+ channel gene in a plant cell model. *Plant Journal*, **1998**, 13, 857-65	6.9	41
6	Molecular characterization of a plant FKBP12 that does not mediate action of FK506 and rapamycin. *Plant Journal*, **1998**, 15, 511-9	6.9	68
5	Identification of a dual-specificity protein phosphatase that inactivates a MAP kinase from Arabidopsis. *Plant Journal*, **1998**, 16, 581-9	6.9	130
4	Molecular characterization of a tyrosine-specific protein phosphatase encoded by a stress-responsive gene in Arabidopsis. *Plant Cell*, **1998**, 10, 849-57	11.6	154
3	Voltage-dependent K+ channels as targets of osmosensing in guard cells. *Plant Cell*, **1998**, 10, 1957-70	11.6	86
2	AtKuP1: a dual-affinity K+ transporter from Arabidopsis. *Plant Cell*, **1998**, 10, 63-73	11.6	243
1	Paradigms and Networks for Intracellular Calcium Signaling in Plant Cells163-188		