Alex Costa

List of Publications by Year in descending order

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97 papers	5,817 citations	70961 41 h-index	82410 72 g-index
122 all docs	122 docs citations	122 times ranked	6279 citing authors

#	Article	IF	Citations
1	A Prototypical Conjugated Polymer Regulating Signaling in Plants. Advanced Sustainable Systems, 2022, 6, 2100048.	2.7	6
2	Dissecting the susceptibility/resistance mechanism of Vitis vinifera for the future control of downy mildew. BIO Web of Conferences, 2022, 44, 04002.	0.1	2
3	Auxin analog-induced Ca2+ signaling is independent of inhibition of endosomal aggregation in Arabidopsis roots. Journal of Experimental Botany, 2022, , .	2.4	4
4	Current Methods to Unravel the Functional Properties of Lysosomal Ion Channels and Transporters. Cells, 2022, 11, 921.	1.8	7
5	Distinct Functions of the Atypical Terminal Hydrophilic Domain of the HKT Transporter in the Liverwort Marchantia polymorpha. Plant and Cell Physiology, 2022, , .	1.5	1
6	Green Tea Catechins, (â^')â€Catechin Gallate, and (â^')â€Gallocatechin Gallate are Potent Inhibitors ofÂABAâ€Ìnduced Stomatal Closure. Advanced Science, 2022, 9, e2201403.	5.6	4
7	Signaling by plant glutamate receptor-like channels: What else!. Current Opinion in Plant Biology, 2022, 68, 102253.	3.5	14
8	Structural insights into longâ€ìdistance signal transduction pathways mediated by plant glutamate receptorâ€ìike channels. New Phytologist, 2021, 229, 1261-1267.	3.5	36
9	The signatures of organellar calcium. Plant Physiology, 2021, 187, 1985-2004.	2.3	33
10	cROStalk for Life: Uncovering ROS Signaling in Plants and Animal Systems, from Gametogenesis to Early Embryonic Development. Genes, 2021, 12, 525.	1.0	10
11	Simultaneous imaging of ER and cytosolic Ca2+ dynamics reveals long-distance ER Ca2+ waves in plants. Plant Physiology, 2021, 187, 603-617.	2.3	25
12	Illuminating the hidden world of calcium ions in plants with a universe of indicators. Plant Physiology, 2021, 187, 550-571.	2.3	37
13	Raf-like kinases and receptor-like (pseudo)kinase GHR1 are required for stomatal vapor pressure difference response. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	21
14	GUN1 influences the accumulation of NEPâ€ìdependent transcripts and chloroplast protein import in Arabidopsis cotyledons upon perturbation of chloroplast protein homeostasis. Plant Journal, 2020, 101, 1198-1220.	2.8	44
15	The structural bases for agonist diversity in an Arabidopsis thaliana glutamate receptor-like channel. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 752-760.	3.3	70
16	Three-dimensional bright-field microscopy with isotropic resolution based on multi-view acquisition and image fusion reconstruction. Scientific Reports, 2020, 10, 12771.	1.6	5
17	Harnessing the new emerging imaging technologies to uncover the role of Ca²⁺ signalling in plant nutrient homeostasis. Plant, Cell and Environment, 2019, 42, 2885-2901.	2.8	16
18	Identification of the Arabidopsis Calmodulin-Dependent NAD⁺ Kinase That Sustains the Elicitor-Induced Oxidative Burst. Plant Physiology, 2019, 181, 1449-1458.	2.3	19

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19	Phosphate Starvation Alters Abiotic-Stress-Induced Cytosolic Free Calcium Increases in Roots. Plant Physiology, 2019, 179, 1754-1767.	2.3	43
20	In Vivo Light Sheet Fluorescence Microscopy of Calcium Oscillations in Arabidopsis thaliana. Methods in Molecular Biology, 2019, 1925, 87-101.	0.4	7
21	Identification of Novel Inhibitors of Auxin-Induced Ca²⁺ Signaling via a Plant-Based Chemical Screen. Plant Physiology, 2019, 180, 480-496.	2.3	18
22	Genetic buffering of cyclic <scp>AMP</scp> in Arabidopsis thaliana compromises the plant immune response triggered by an avirulent strain of Pseudomonas syringae pv. tomato. Plant Journal, 2019, 98, 590-606.	2.8	32
23	The fluorescent protein sensor ro<scp>GFP</scp>2â€Orp1 monitors inÂvivo H₂O₂ and thiol redox integration and elucidates intracellular H₂O₂ dynamics during elicitorâ€induced oxidative burst in Arabidopsis. New Phytologist, 2019, 221, 1649-1664.	3.5	132
24	Redox Homeostasis in Photosynthetic Organisms: Novel and Established Thiol-Based Molecular Mechanisms. Antioxidants and Redox Signaling, 2019, 31, 155-210.	2.5	95
25	The Arabidopsis thaliana transcription factor MYB59 regulates calcium signalling during plant growth and stress response. Plant Molecular Biology, 2019, 99, 517-534.	2.0	47
26	Trans-splicing of plastid rps12 transcripts, mediated by AtPPR4, is essential for embryo patterning in Arabidopsis thaliana. Planta, 2018, 248, 257-265.	1.6	19
27	In Vivo Analysis of Calcium Levels and Glutathione Redox Status in Arabidopsis Epidermal Leaf Cells Infected with the Hypersensitive Response-Inducing Bacteria Pseudomonas syringae pv. tomato AvrB (PstAvrB). Methods in Molecular Biology, 2018, 1743, 125-141.	0.4	9
28	Calcium Ion Dynamics in Roots: Imaging and Analysis. Methods in Molecular Biology, 2018, 1761, 115-130.	0.4	7
29	Endoplasmic reticulum-localized CCX2 is required for osmotolerance by regulating ER and cytosolic Ca ²⁺ dynamics in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3966-3971.	3.3	61
30	Cellular Ca²⁺ Signals Generate Defined pH Signatures in Plants. Plant Cell, 2018, 30, 2704-2719.	3.1	141
31	Unique resistance traits against downy mildew from the center of origin of grapevine (Vitis vinifera). Scientific Reports, 2018, 8, 12523.	1.6	50
32	The contribution of organelles to plant intracellular calcium signalling. Journal of Experimental Botany, 2018, 69, 4175-4193.	2.4	94
33	Pharmacological Strategies for Manipulating Plant Ca2+ Signalling. International Journal of Molecular Sciences, 2018, 19, 1506.	1.8	34
34	MIZ1 regulates ECA1 to generate a slow, long-distance phloem-transmitted Ca²⁺signal essential for root water tracking inArabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8031-8036.	3.3	76
35	Mutual Influence of ROS, pH, and CLIC1 Membrane Protein in the Regulation of G1â€“S Phase Progression in Human Glioblastoma Stem Cells. Molecular Cancer Therapeutics, 2018, 17, 2451-2461.	1.9	21
36	Systemic Calcium Wave Propagation in Physcomitrella patens. Plant and Cell Physiology, 2018, 59, 1377-1384.	1.5	19

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37	OsHKT1;5 mediates Na⁺ exclusion in the vasculature to protect leaf blades and reproductive tissues from salt toxicity in rice. Plant Journal, 2017, 91, 657-670.	2.8	210
38	Ca2+-dependent phosphoregulation of the plasma membrane Ca2+-ATPase ACA8 modulates stimulus-induced calcium signatures. Journal of Experimental Botany, 2017, 68, 3215-3230.	2.4	72
39	Light Sheet Fluorescence Microscopy Quantifies Calcium Oscillations in Root Hairs ofArabidopsis thaliana. Plant and Cell Physiology, 2017, 58, 1161-1172.	1.5	46
40	Physiological Characterization of a Plant Mitochondrial Calcium Uniporter in Vitro and in Vivo. Plant Physiology, 2017, 173, 1355-1370.	2.3	54
41	Electron current recordings in living cells. Biophysical Chemistry, 2017, 229, 57-61.	1.5	3
42	CRP1 Protein: (dis)similarities between Arabidopsis thaliana and Zea mays. Frontiers in Plant Science, 2017, 8, 163.	1.7	17
43	Ectopic Expression of PII Induces Stomatal Closure in Lotus japonicus. Frontiers in Plant Science, 2017, 8, 1299.	1.7	15
44	The Kinase ERULUS Controls Pollen Tube Targeting and Growth in Arabidopsis thaliana. Frontiers in Plant Science, 2017, 8, 1942.	1.7	31
45	ATP sensing in living plant cells reveals tissue gradients and stress dynamics of energy physiology. ELife, 2017, 6, .	2.8	125
46	Calcium Flux across Plant Mitochondrial Membranes: Possible Molecular Players. Frontiers in Plant Science, 2016, 7, 354.	1.7	13
47	Constitutive cyclic GMP accumulation in Arabidopsis thaliana compromises systemic acquired resistance induced by an avirulent pathogen by modulating local signals. Scientific Reports, 2016, 6, 36423.	1.6	27
48	Chloroplast-Specific in Vivo Ca²⁺ Imaging Using Yellow Cameleon Fluorescent Protein Sensors Reveals Organelle-Autonomous Ca²⁺ Signatures in the Stroma. Plant Physiology, 2016, 171, 2317-2330.	2.3	71
49	OsHKT1;4-mediated Na+ transport in stems contributes to Na+ exclusion from leaf blades of rice at the reproductive growth stage upon salt stress. BMC Plant Biology, 2016, 16, 22.	1.6	168
50	Î²-amylase 1 (BAM1) degrades transitory starch to sustain proline biosynthesis during drought stress. Journal of Experimental Botany, 2016, 67, 1819-1826.	2.4	156
51	OsHKT2;2/1-mediated Na+ influx over K+ uptake in roots potentially increases toxic Na+ accumulation in a salt-tolerant landrace of rice Nona Bokra upon salinity stress. Journal of Plant Research, 2016, 129, 67-77.	1.2	32
52	AIR12, a b -type cytochrome of the plasma membrane of Arabidopsis thaliana is a negative regulator of resistance against Botrytis cinerea. Plant Science, 2015, 233, 32-43.	1.7	10
53	Colorful Insights: Advances in Imaging Drive Novel Breakthroughs in Ca2+ Signaling. Molecular Plant, 2015, 8, 352-355.	3.9	22
54	The EF-Hand Ca²⁺ Binding Protein MICU Choreographs Mitochondrial Ca²⁺ Dynamics in Arabidopsis. Plant Cell, 2015, 27, 3190-3212.	3.1	103

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55	Direct Recording of Trans-Plasma Membrane Electron Currents Mediated by a Member of the Cytochrome b561 Family of Soybean. Plant Physiology, 2015, 169, 986-995.	2.3	21
56	Alternative Splicing-Mediated Targeting of the Arabidopsis GLUTAMATE RECEPTOR3.5 to Mitochondria Affects Organelle Morphology. Plant Physiology, 2015, 167, 216-227.	2.3	69
57	Analysis of Plant Mitochondrial Function Using Fluorescent Protein Sensors. Methods in Molecular Biology, 2015, 1305, 241-252.	0.4	23
58	FISSION1A, an Arabidopsis Tail-Anchored Protein, Is Localized to Three Subcellular Compartments. Molecular Plant, 2014, 7, 1393-1396.	3.9	19
59	Functional imaging in living plantsÃ¢â‚¬â€cell biology meets physiology. Frontiers in Plant Science, 2014, 5, 740.	1.7	3
60	The phosphoinositide PI(3,5)P2 mediates activation of mammalian but not plant TPC proteins: functional expression of endolysosomal channels in yeast and plant cells. Cellular and Molecular Life Sciences, 2014, 71, 4275-4283.	2.4	63
61	Perception of soft mechanical stress in Arabidopsis leaves activates disease resistance. BMC Plant Biology, 2013, 13, 133.	1.6	98
62	The D3cpv Cameleon reports Ca²⁺ dynamics in plant mitochondria with similar kinetics of the YC3.6 Cameleon, but with a lower sensitivity. Journal of Microscopy, 2013, 249, 8-12.	0.8	18
63	An <scp>AM</scp>â€induced, <scp>MYB</scp>â€family gene of Lotus japonicus (Lj<scp>MAMI</scp>) affects root growth in an <scp>AM</scp>â€independent manner. Plant Journal, 2013, 73, 442-455.	2.8	46
64	Production of reactive oxygen species and wound-induced resistance in Arabidopsis thaliana against Botrytis cinereaare preceded and depend on a burst of calcium. BMC Plant Biology, 2013, 13, 160.	1.6	64
65	Analyses of Ca2+ Accumulation and Dynamics in the Endoplasmic Reticulum of Arabidopsis Root Cells Using a Genetically Encoded Cameleon Sensor Â Â. Plant Physiology, 2013, 163, 1230-1241.	2.3	80
66	Imaging of Mitochondrial and Nuclear Ca²⁺ Dynamics in Arabidopsis Roots. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot073049.	0.2	13
67	Limits in the use of cPTIO as nitric oxide scavenger and EPR probe in plant cells and seedlings. Frontiers in Plant Science, 2013, 4, 340.	1.7	34
68	Ca²⁺ Imaging in Plants Using Genetically Encoded Yellow Cameleon Ca²⁺ Indicators. Cold Spring Harbor Protocols, 2013, 2013, pdb.top066183.	0.2	18
69	Nuclear Accumulation of Cytosolic Glyceraldehyde-3-Phosphate Dehydrogenase in Cadmium-Stressed Arabidopsis Roots Â Â. Plant Physiology, 2013, 162, 333-346.	2.3	94
70	Plant cytoplasmic GAPDH: redox post-translational modifications and moonlighting properties. Frontiers in Plant Science, 2013, 4, 450.	1.7	156
71	Peroxisome Ca2+ Homeostasis in Animal and Plant Cells. Sub-Cellular Biochemistry, 2013, 69, 111-133.	1.0	8
72	Calcium Dynamics in Root Cells of Arabidopsis thaliana Visualized with Selective Plane Illumination Microscopy. PLoS ONE, 2013, 8, e75646.	1.1	75

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73	The Arabidopsis central vacuole as an expression system for intracellular transporters: functional characterization of the Cl^{â‾}/H⁺ exchanger CLCâ€7. Journal of Physiology, 2012, 590, 3421-3430.	1.3	34
74	Two putative-aquaporin genes are differentially expressed during arbuscular mycorrhizal symbiosis in Lotus japonicus. BMC Plant Biology, 2012, 12, 186.	1.6	60
75	Targeting of Cameleons to various subcellular compartments reveals a strict cytoplasmic/mitochondrial Ca²⁺ handling relationship in plant cells. Plant Journal, 2012, 71, 1-13.	2.8	131
76	The p23 co-chaperone protein is a novel substrate of CK2 in Arabidopsis. Molecular and Cellular Biochemistry, 2011, 356, 245-254.	1.4	10
77	K+ Transport by the OsHKT2;4 Transporter from Rice with Atypical Na+ Transport Properties and Competition in Permeation of K+ over Mg2+ and Ca2+ Ions Â Â Â. Plant Physiology, 2011, 156, 1493-1507.	2.3	138
78	Thioredoxin-regulated Î²-amylase (BAM1) triggers diurnal starch degradation in guard cells, and in mesophyll cells under osmotic stress. Journal of Experimental Botany, 2011, 62, 545-555.	2.4	182
79	Characterization of a Developmental Root Response Caused by External Ammonium Supply in Lotus japonicus Â Â Â. Plant Physiology, 2010, 154, 784-795.	2.3	66
80	Salicylic acid differentially affects suspension cell cultures of Lotus japonicus and one of its non-symbiotic mutants. Plant Molecular Biology, 2010, 72, 469-483.	2.0	9
81	Arabidopsis thaliana Glyceraldehyde-3-Phosphate Dehydrogenase As An Oxidative Stress Sensor. Journal of Biotechnology, 2010, 150, 488-488.	1.9	0
82	H2O2 in plant peroxisomes: an in vivo analysis uncovers a Ca2+-dependent scavenging system. Plant Journal, 2010, 62, 760-772.	2.8	211
83	Modulation of Plant Slow Vacuolar (sv) Channel by Flavonoid Naringenin. Biophysical Journal, 2010, 98, 534a-535a.	0.2	1
84	Auxin-Responsive Genes AIR12 Code for a New Family of Plasma Membrane b-Type Cytochromes Specific to Flowering Plants Â Â Â. Plant Physiology, 2009, 150, 606-620.	2.3	50
85	Nitric Oxide Is Involved in Cadmium-Induced Programmed Cell Death in Arabidopsis Suspension Cultures Â Â. Plant Physiology, 2009, 150, 217-228.	2.3	243
86	KDC1, a carrot Shaker-like potassium channel, reveals its role as a silent regulatory subunit when expressed in plant cells. Plant Molecular Biology, 2008, 66, 61-72.	2.0	31
87	Agroinfiltration of grapevine leaves for fast transient assays of gene expression and for long-term production of stable transformed cells. Plant Cell Reports, 2008, 27, 845-853.	2.8	91
88	AtKC1, a conditionally targeted Shakerâ€type subunit, regulates the activity of plant K⁺ channels. Plant Journal, 2008, 53, 115-123.	2.8	107
89	Isolation of a strong Arabidopsis guard cell promoter and its potential as a research tool. Plant Methods, 2008, 4, 6.	1.9	295
90	Salicylic acid activates nitric oxide synthesis in Arabidopsis. Journal of Experimental Botany, 2007, 58, 1397-1405.	2.4	173

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91	Rice OsHKT2;1 transporter mediates large Na+ influx component into K+-starved roots for growth. EMBO Journal, 2007, 26, 3003-3014.	3.5	333
92	Redox Regulation of a Novel Plastid-Targeted Î²-Amylase of Arabidopsis. Plant Physiology, 2006, 141, 840-850.	2.3	144
93	NO signalling in cytokinin-induced programmed cell death. Plant, Cell and Environment, 2005, 28, 1171-1178.	2.8	80
94	A procedure for localisation and electrophysiological characterisation of ion channels heterologously expressed in a plant context. Plant Methods, 2005, 1, 14.	1.9	30
95	Potassium and carrot embryogenesis: Are K+ channels necessary for development?. Plant Molecular Biology, 2004, 54, 837-852.	2.0	12
96	DKT1, a novel K+channel from carrot, forms functional heteromeric channels with KDC1. FEBS Letters, 2004, 573, 61-67.	1.3	23
97	Histidines Are Responsible for Zinc Potentiation of the Current in KDC1 Carrot Channels. Biophysical Journal, 2004, 86, 224-234.	0.2	20