Jaakko Sakari KangasjÃ¤rvi

List of Publications by Year
in descending order

120 papers	19,424 citations	16451 64 h-index	20358 116 g-index
137 all docs	137 docs citations	137 times ranked	17029 citing authors

#	Article	IF	Citations
1	Arabidopsis Iron Superoxide Dismutase FSD1 Protects Against Methyl Viologen-Induced Oxidative Stress in a Copper-Dependent Manner. Frontiers in Plant Science, 2022, 13, 823561.	3.6	8
2	ACONITASE 3 is part of theANAC017 transcription factor-dependent mitochondrial dysfunction response. Plant Physiology, 2021, 186, 1859-1877.	4.8	15
3	PopulusPtERF85 Balances Xylem Cell Expansion and Secondary Cell Wall Formation in Hybrid Aspen. Cells, 2021, 10, 1971.	4.1	11
4	PROTEIN PHOSPHATASE 2A-Bâ€²Î³ Controls Botrytis cinerea Resistance and Developmental Leaf Senescence. Plant Physiology, 2020, 182, 1161-1181.	4.8	25
5	Dissecting the interaction of photosynthetic electron transfer with mitochondrial signalling and hypoxic response in the Arabidopsis rcd1 mutant. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190413.	4.0	15
6	Primary Metabolite Responses to Oxidative Stress in Early-Senescing and Paraquat Resistant Arabidopsis thaliana rcd1 (Radical-Induced Cell Death1). Frontiers in Plant Science, 2020, 11, 194.	3.6	20
7	Systemic Signaling in the Regulation of Stomatal Conductance. Plant Physiology, 2020, 182, 1829-1832.	4.8	30
8	An <scp>AP</scp>2/<scp>ERF</scp> transcription factor <scp>ERF</scp>139 coordinates xylem cell expansion and secondary cell wall deposition. New Phytologist, 2019, 224, 1585-1599.	7.3	49
9	Tissueâ€specific study across the stem reveals the chemistry and transcriptome dynamics of birch bark. New Phytologist, 2019, 222, 1816-1831.	7.3	56
10	Interaction of methyl viologen-induced chloroplast and mitochondrial signalling in Arabidopsis. Free Radical Biology and Medicine, 2019, 134, 555-566.	2.9	51
11	Mechanistic insights into the evolution of DUF26-containing proteins in land plants. Communications Biology, 2019, 2, 56.	4.4	75
12	Rapid Responses to Abiotic Stress: Priming the Landscape for the Signal Transduction Network. Trends in Plant Science, 2019, 24, 25-37.	8.8	264
13	Reactive Oxygen Species, Photosynthesis, and Environment in the Regulation of Stomata. Antioxidants and Redox Signaling, 2019, 30, 1220-1237.	5.4	38
14	Arabidopsis RCD1 coordinates chloroplast and mitochondrial functions through interaction with ANAC transcription factors. ELife, 2019, 8, .	6.0	118
15	Reactive Oxygen Species in Plant Signaling. Annual Review of Plant Biology, 2018, 69, 209-236.	18.7	858
16	The role of reactive oxygen species in the integration of temperature and light signals. Journal of Experimental Botany, 2018, 69, 3347-3358.	4.8	24
17	Reactive oxygen species signaling and stomatal movement in plant responses to drought stress and pathogen attack. Journal of Integrative Plant Biology, 2018, 60, 805-826.	8.5	397
18	Ethylene signaling induces gelatinous layers with typical features of tension wood in hybrid aspen. New Phytologist, 2018, 218, 999-1014.	7.3	52

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19	The Receptor-like Pseudokinase GHR1 Is Required for Stomatal Closure. Plant Cell, 2018, 30, 2813-2837.	6.6	95
20	Arabidopsis downy mildew effector HaRxL106 suppresses plant immunity by binding to RADICALâ€INDUCED CELL DEATH1. New Phytologist, 2018, 220, 232-248.	7.3	51
21	Genome sequencing and population genomic analyses provide insights into the adaptive landscape of silver birch. Nature Genetics, 2017, 49, 904-912.	21.4	221
22	1H, 13C and 15N NMR chemical shift assignments of A. thaliana RCD1 RST. Biomolecular NMR Assignments, 2017, 11, 207-210.	0.8	8
23	The IDA-LIKE peptides IDL6 and IDL7 are negative modulators of stress responses in Arabidopsis thaliana. Journal of Experimental Botany, 2017, 68, 3557-3571.	4.8	34
24	Detecting early signs of heat and drought stress in Phoenix dactylifera (date palm). PLoS ONE, 2017, 12, e0177883.	2.5	42
25	ROS signalling in a destabilised world: A molecular understanding of climate change. Journal of Plant Physiology, 2016, 203, 69-83.	3.5	45
26	Lack of GLYCOLATE OXIDASE1, but Not GLYCOLATE OXIDASE2, Attenuates the Photorespiratory Phenotype of CATALASE2-Deficient Arabidopsis. Plant Physiology, 2016, 171, 1704-1719.	4.8	84
27	A Dominant Mutation in the HT1 Kinase Uncovers Roles of MAP Kinases and GHR1 in CO₂-Induced Stomatal Closure. Plant Cell, 2016, 28, 2493-2509.	6.6	89
28	Axillary buds are dwarfed shoots that tightly regulate GA pathway and GA-inducible 1,3-Î²-glucanase genes during branching in hybrid aspen. Journal of Experimental Botany, 2016, 67, 5975-5991.	4.8	44
29	Reactive Oxygen Species in the Regulation of Stomatal Movements. Plant Physiology, 2016, 171, 1569-1580.	4.8	199
30	Spreading the news: subcellular and organellar reactive oxygen species production and signalling. Journal of Experimental Botany, 2016, 67, 3831-3844.	4.8	364
31	Natural Variation in Arabidopsis Cvi-0 Accession Reveals an Important Role of MPK12 in Guard Cell CO2 Signaling. PLoS Biology, 2016, 14, e2000322.	5.6	69
32	Plant PARPs, PARGs and PARP-like Proteins. Current Protein and Peptide Science, 2016, 17, 713-723.	1.4	27
33	Large-Scale Phenomics Identifies Primary and Fine-Tuning Roles for CRKs in Responses Related to Oxidative Stress. PLoS Genetics, 2015, 11, e1005373.	3.5	167
34	Long and short photoperiod buds in hybrid aspen share structural development and expression patterns of marker genes. Journal of Experimental Botany, 2015, 66, 6745-6760.	4.8	20
35	<scp>GRIM REAPER</scp> peptide binds to receptor kinase <scp>PRK</scp> 5 to trigger cell death in Arabidopsis. EMBO Journal, 2015, 34, 55-66.	7.8	83
36	Plant signalling in acute ozone exposure. Plant, Cell and Environment, 2015, 38, 240-252.	5.7	166

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37	Towards Understanding Extracellular ROS Sensory and Signaling Systems in Plants. Advances in Botany, 2014, 2014, 1-10.	3.4	20
38	Transcriptomics and Functional Genomics of ROS-Induced Cell Death Regulation by RADICAL-INDUCED CELL DEATH1. PLoS Genetics, 2014, 10, e1004112.	3.5	88
39	The Arabidopsis thaliana cysteine-rich receptor-like kinases CRK6 and CRK7 protect against apoplastic oxidative stress. Biochemical and Biophysical Research Communications, 2014, 445, 457-462.	2.1	121
40	Specificity in ROS Signaling and Transcript Signatures. Antioxidants and Redox Signaling, 2014, 21, 1422-1441.	5.4	140
41	ROS signaling loops â€" production, perception, regulation. Current Opinion in Plant Biology, 2013, 16, 575-582.	7.1	303
42	Apoplastic and Chloroplastic Redox Signaling Networks in Plant Stress Responses. Antioxidants and Redox Signaling, 2013, 18, 2220-2239.	5.4	94
43	Mutations in the <scp>SLAC</scp>1 anion channel slow stomatal opening and severely reduce K⁺ uptake channel activity via enhanced cytosolic [Ca²⁺] and increased Ca²⁺ sensitivity of K⁺ uptake channels. New Phytologist, 2013, 197, 88-98.	7.3	50
44	The Membrane-Bound NAC Transcription Factor ANAC013 Functions in Mitochondrial Retrograde Regulation of the Oxidative Stress Response in Arabidopsis Â Â. Plant Cell, 2013, 25, 3472-3490.	6.6	293
45	A genomeâ€wide screen for ethyleneâ€induced Ethylene Response Factors (<scp>ERF</scp>s) in hybrid aspen stem identifies <scp>ERF</scp> genes that modify stem growth and wood properties. New Phytologist, 2013, 200, 511-522.	7.3	90
46	Non-Cell-Autonomous Postmortem Lignification of Tracheary Elements inZinnia elegansÂ Â. Plant Cell, 2013, 25, 1314-1328.	6.6	158
47	ROS-talk â€" how the apoplast, the chloroplast, and the nucleus get the message through. Frontiers in Plant Science, 2012, 3, 292.	3.6	218
48	Reconstitution of abscisic acid activation of SLAC1 anion channel by CPK6 and OST1 kinases and branched ABI1 PP2C phosphatase action. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10593-10598.	7.1	393
49	Low antioxidant concentrations impact on multiple signalling pathways in Arabidopsis thaliana partly through NPR1. Journal of Experimental Botany, 2012, 63, 1849-1861.	4.8	33
50	RCD1â€"DREB2A interaction in leaf senescence and stress responses in Arabidopsis thaliana. Biochemical Journal, 2012, 442, 573-581.	3.7	107
51	Pathway Reconstitution of Abscisic Acid Hormone Activation of SLAC1 Anion Channels via Novel ABA Signaling Protein Kinase. Biophysical Journal, 2012, 102, 550a-551a.	0.5	0
52	Targeted retrieval of gene expression measurements using regulatory models. Bioinformatics, 2012, 28, 2349-2356.	4.1	18
53	The physiological, transcriptional and genetic responses of an ozone- sensitive and an ozone tolerant poplar and selected extremes of their F 2 progeny. Environmental Pollution, 2011, 159, 45-54.	7.5	32
54	Ethylene signaling via Ethylene Response Factors (ERFs) modifies wood development in hybrid aspen. BMC Proceedings, 2011, 5, .	1.6	5

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55	Comparative study of transcriptional and physiological responses to salinity stress in two contrasting Populus alba L. genotypes. Tree Physiology, 2011, 31, 1335-1355.	3.1	44
56	Apoplastic Reactive Oxygen Species Transiently Decrease Auxin Signaling and Cause Stress-Induced Morphogenic Response in Arabidopsis Â Â. Plant Physiology, 2011, 157, 1866-1883.	4.8	154
57	Chilling of Dormant Buds HyperinducesFLOWERING LOCUS Tand Recruits GA-Inducible 1,3-Î²-Glucanases to Reopen Signal Conduits and Release Dormancy inPopulusÂ Â. Plant Cell, 2011, 23, 130-146.	6.6	402
58	The RST and PARP-like domain containing SRO protein family: analysis of protein structure, function and conservation in land plants. BMC Genomics, 2010, 11, 170.	2.8	101
59	Transcriptional regulation of the CRK/DUF26 group of Receptor-like protein kinases by ozone and plant hormones in Arabidopsis. BMC Plant Biology, 2010, 10, 95.	3.6	261
60	Gene expression responses of paper birch (Betula papyrifera) to elevated CO2 and O3 during leaf maturation and senescence. Environmental Pollution, 2010, 158, 959-968.	7.5	39
61	Natural variation in ozone sensitivity among Arabidopsis thaliana accessions and its relation to stomatal conductance. Plant, Cell and Environment, 2010, 33, 914-925.	5.7	111
62	Differential gene expression in senescing leaves of two silver birch genotypes in response to elevated CO₂ and tropospheric ozone. Plant, Cell and Environment, 2010, 33, 1016-1028.	5.7	37
63	Ozone-triggered rapid stomatal response involves the production of reactive oxygen species, and is controlled by SLAC1 and OST1. Plant Journal, 2010, 62, 442-453.	5.7	262
64	Reactive oxygen species in abiotic stress signaling. Physiologia Plantarum, 2010, 138, 405-413.	5.2	440
65	Plant ROS and RNS: making plant science more radical than ever. Physiologia Plantarum, 2010, 138, 357-359.	5.2	8
66	Linking the Salt Transcriptome with Physiological Responses of a Salt-Resistant Populus Species as a Strategy to Identify Genes Important for Stress Acclimation. Plant Physiology, 2010, 154, 1697-1709.	4.8	120
67	The transcription factor interacting protein RCD1 contains a novel conserved domain. Plant Signaling and Behavior, 2010, 5, 78-80.	2.4	42
68	Photosynthetic characteristics in genetically modified sense-RbcS silver birch lines. Journal of Plant Physiology, 2010, 167, 820-828.	3.5	5
69	Arabidopsis GRI is involved in the regulation of cell death induced by extracellular ROS. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5412-5417.	7.1	75
70	Ethylene is an endogenous stimulator of cell division in the cambial meristem of Populus. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5984-5989.	7.1	218
71	Scorched earth strategy. Plant Signaling and Behavior, 2009, 4, 631-633.	2.4	2
72	Nitric oxide modulates ozoneâ€induced cell death, hormone biosynthesis and gene expression in Arabidopsis thaliana. Plant Journal, 2009, 58, 1-12.	5.7	182

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73	Unequally redundant RCD1 and SRO1 mediate stress and developmental responses and interact with transcription factors. Plant Journal, 2009, 60, 268-279.	5.7	156
74	Stress Signaling III: Reactive Oxygen Species (ROS). , 2009, , 91-102.		10
75	Ozone and nitric oxide interaction inArabidopsis thaliana, a role for ethylene?. Plant Signaling and Behavior, 2009, 4, 878-879.	2.4	28
76	Reactive Oxygen Species in Ozone Toxicity. Signaling and Communication in Plants, 2009, , 191-207.	0.7	5
77	Complex phenotypic profiles leading to ozone sensitivity in Arabidopsis thaliana mutants. Plant, Cell and Environment, 2008, 31, 1237-1249.	5.7	69
78	SLAC1 is required for plant guard cell S-type anion channel function in stomatal signalling. Nature, 2008, 452, 487-491.	27.8	733
79	CENL1Expression in the Rib Meristem Affects Stem Elongation and the Transition to Dormancy inPopulus. Plant Cell, 2008, 20, 59-74.	6.6	107
80	Gradual Soil Water Depletion Results in Reversible Changes of Gene Expression, Protein Profiles, Ecophysiology, and Growth Performance in Populus euphratica, a Poplar Growing in Arid Regions. Plant Physiology, 2007, 143, 876-892.	4.8	338
81	A novel device detects a rapid ozone-induced transient stomatal closure in intact Arabidopsis and its absence in abi2 mutant. Physiologia Plantarum, 2007, 129, 796-803.	5.2	98
82	Transitions in the functioning of the shoot apical meristem in birch (Betula pendula) involve ethylene. Plant Journal, 2006, 46, 628-640.	5.7	108
83	The Genome of Black Cottonwood, Populus trichocarpa (Torr. & Gray). Science, 2006, 313, 1596-1604.	12.6	3,945
84	Signalling and cell death in ozone-exposed plants. Plant, Cell and Environment, 2005, 28, 1021-1036.	5.7	418
85	Molecular characterization of PeNhaD1: the first member of the NhaD Na+/H+ antiporter family of plant origin. Plant Molecular Biology, 2005, 58, 75-88.	3.9	77
86	Ozone-Induced Programmed Cell Death in the Arabidopsis radical-induced cell death1 Mutant. Plant Physiology, 2005, 137, 1092-1104.	4.8	178
87	Expression of senescence-associated genes in the leaves of silver birch (Betula pendula). Tree Physiology, 2005, 25, 1161-1172.	3.1	17
88	Populus euphratica Displays Apoplastic Sodium Accumulation, Osmotic Adjustment by Decreases in Calcium and Soluble Carbohydrates, and Develops Leaf Succulence under Salt Stress. Plant Physiology, 2005, 139, 1762-1772.	4.8	261
89	Gene expression and metabolite profiling of Populus euphratica growing in the Negev desert. Genome Biology, 2005, 6, R101.	9.6	208
90	Arabidopsis RADICAL-INDUCED CELL DEATH1 Belongs to the WWE Proteinâ€“Protein Interaction Domain Protein Family and Modulates Abscisic Acid, Ethylene, and Methyl Jasmonate Responses. Plant Cell, 2004, 16, 1925-1937.	6.6	217

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91	Short-Day Potentiation of Low Temperature-Induced Gene Expression of a C-Repeat-Binding Factor-Controlled Gene during Cold Acclimation in Silver Birch. Plant Physiology, 2004, 136, 4299-4307.	4.8	98
92	Mutual antagonism of ethylene and jasmonic acid regulates ozone-induced spreading cell death inArabidopsis. Plant Journal, 2004, 39, 59-69.	5.7	109
93	Stress hormone-independent activation and nuclear translocation of mitogen-activated protein kinases in Arabidopsis thaliana during ozone exposure. Plant Journal, 2004, 40, 512-522.	5.7	214
94	The jasmonate-insensitive mutant jin1 shows increased resistance to biotrophic as well as necrotrophic pathogens. Molecular Plant Pathology, 2004, 5, 425-434.	4.2	95
95	Ethylene and Jasmonate as Regulators of Cell Death in Disease Resistance. Ecological Studies, 2004, , 75-109.	1.2	17
96	Changes in hydrogen peroxide homeostasis trigger an active cell death process in tobacco. Plant Journal, 2003, 33, 621-632.	5.7	272
97	Reactive oxygen species and hormonal control of cell death. Trends in Plant Science, 2003, 8, 335-342.	8.8	599
98	Differential Effects of Elevated Ozone on Two Hybrid Aspen Genotypes Predisposed to Chronic Ozone Fumigation. Role of Ethylene and Salicylic Acid. Plant Physiology, 2003, 132, 196-205.	4.8	58
99	Ethylene Insensitivity Modulates Ozone-Induced Cell Death in Birch. Plant Physiology, 2003, 132, 185-195.	4.8	96
100	Ethylene Synthesis Regulated by Biphasic Induction of 1-Aminocyclopropane-1-Carboxylic Acid Synthase and 1-Aminocyclopropane-1-Carboxylic Acid Oxidase Genes Is Required for Hydrogen Peroxide Accumulation and Cell Death in Ozone-Exposed Tomato. Plant Physiology, 2002, 130, 1918-1926.	4.8	199
101	Hydrogen Peroxide Activates Cell Death and Defense Gene Expression in Birch. Plant Physiology, 2002, 130, 549-560.	4.8	129
102	Activation of an oxidative burst is a general feature of sensitive plants exposed to the air pollutant ozone. Plant, Cell and Environment, 2002, 25, 717-726.	5.7	273
103	Preservation of transgenic silver birch (Betula pendula Roth) lines by means of cryopreservation. Molecular Breeding, 2002, 10, 143-152.	2.1	22
104	Ozone-Induced Cell Death. Tree Physiology, 2001, , 81-92.	2.5	0
105	[47] Ozone effects on plant defense. Methods in Enzymology, 2000, 319, 520-535.	1.0	18
106	Ozone-Sensitive Arabidopsis rcd1 Mutant Reveals Opposite Roles for Ethylene and Jasmonate Signaling Pathways in Regulating Superoxide-Dependent Cell Death. Plant Cell, 2000, 12, 1849-1862.	6.6	491
107	Genetic transformation of silver birch (Betula pendula) by particle bombardment. Tree Physiology, 2000, 20, 607-613.	3.1	30
108	Ozone-Sensitive Arabidopsis rcd1 Mutant Reveals Opposite Roles for Ethylene and Jasmonate Signaling Pathways in Regulating Superoxide-Dependent Cell Death. Plant Cell, 2000, 12, 1849.	6.6	49

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109	Expression of photosynthesis- and senescence-related genes during leaf development and senescence in silver birch (Betula pendula) seedlings. Physiologia Plantarum, 1999, 106, 302-309.	5.2	27
110	Subcellular localization of ozone-induced hydrogen peroxide production in birch (Betula pendula) leaf cells. Plant Journal, 1999, 20, 349-356.	5.7	203
111	Induction of genes for the stress proteins PRâ€10 and PAL in relation to growth, visible injuries and stomatal conductance in birch (Betula pendula) clones exposed to ozone and/or drought. New Phytologist, 1998, 138, 295-305.	7.3	71
112	Cloning and characterization of cDNA clones encoding phenylalanine ammonia-lyase in barley. Plant Science, 1997, 123, 143-150.	3.6	21
113	Isolation and characterization of cDNA for a plant mitochondrial phosphate translocator (Mpt1): ozone stress induces Mpt1 mRNA accumulation in birch (Betula pendula Roth). Plant Molecular Biology, 1997, 35, 271-279.	3.9	55
114	Ozone induction of ethylene emission in tomato plants: regulation by differential accumulation of transcripts for the biosynthetic enzymes. Plant Journal, 1997, 12, 1151-1162.	5.7	133
115	Ozone Affects Birch (Betula pendula Roth) Phenylpropanoid, Polyamine and Active Oxygen Detoxifying Pathways at Biochemical and Gene Expression Level. Journal of Plant Physiology, 1996, 148, 179-188.	3.5	59
116	Plant defence systems induced by ozone. Plant, Cell and Environment, 1994, 17, 783-794.	5.7	468
117	Plastid DNA in Developing Maize Endosperm. Plant Physiology, 1992, 100, 958-964.	4.8	24
118	Nucleotide sequence and transcription of maize plastid genomeBam HI fragment 14 containing ORF170. Plant Molecular Biology, 1991, 17, 513-515.	3.9	4
119	Pollinator behaviour in cultivated and wild Arctic Bramble (Rubus arcticus L.). Agricultural and Food Science, 1989, 61, 33-38.	0.9	2
120	Reactive Oxygen in Abiotic Stress Perception - From Genes to Proteins. , 0, , .		4