Joost Thomas van Dongen

List of Publications by Year
in descending order

74 papers	10,046 citations	38742 50 h-index	79698 73 g-index
76 all docs	76 docs citations	76 times ranked	10704 citing authors

#	Article	IF	Citations
1	Oxygen sensing in plants is mediated by an N-end rule pathway for protein destabilization. Nature, 2011, 479, 419-422.	27.8	628
2	On the origins of nitric oxide. Trends in Plant Science, 2011, 16, 160-168.	8.8	528
3	Making sense of low oxygen sensing. Trends in Plant Science, 2012, 17, 129-138.	8.8	465
4	The effect of geometry on three-dimensional tissue growth. Journal of the Royal Society Interface, 2008, 5, 1173-1180.	3.4	413
5	Priming and memory of stress responses in organisms lacking a nervous system. Biological Reviews, 2016, 91, 1118-1133.	10.4	388
6	HRE1 and HRE2, two hypoxia-inducible ethylene response factors, affect anaerobic responses in Arabidopsis thaliana. Plant Journal, 2010, 62, 302-315.	5.7	384
7	Symbiotic Leghemoglobins Are Crucial for Nitrogen Fixation in Legume Root Nodules but Not for General Plant Growth and Development. Current Biology, 2005, 15, 531-535.	3.9	350
8	Glycolysis and the Tricarboxylic Acid Cycle Are Linked by Alanine Aminotransferase during Hypoxia Induced by Waterlogging of <i>Lotus japonicus</i>. Plant Physiology, 2010, 152, 1501-1513.	4.8	346
9	SNF1-related kinases allow plants to tolerate herbivory by allocating carbon to roots. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12935-12940.	7.1	312
10	Cold-induced repression of the rice anther-specific cell wall invertase gene OSINV4 is correlated with sucrose accumulation and pollen sterility. Plant, Cell and Environment, 2005, 28, 1534-1551.	5.7	309
11	Plant cysteine oxidases control the oxygen-dependent branch of the N-end-rule pathway. Nature Communications, 2014, 5, 3425.	12.8	293
12	Potassium (K ⁺) gradients serve as a mobile energy source in plant vascular tissues. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 864-869.	7.1	255
13	Mass spectrometryâ€based plant metabolomics: Metabolite responses to abiotic stress. Mass Spectrometry Reviews, 2016, 35, 620-649.	5.4	254
14	Regulation of Respiration and Fermentation to Control the Plant Internal Oxygen Concentration. Plant Physiology, 2009, 149, 1087-1098.	4.8	240
15	Comparing straw, compost, and biochar regarding their suitability as agricultural soil amendments to affect soil structure, nutrient leaching, microbial communities, and the fate of pesticides. Science of the Total Environment, 2021, 751, 141607.	8.0	221
16	Use of reverseâ€phase liquid chromatography, linked to tandem mass spectrometry, to profile the Calvin cycle and other metabolic intermediates in Arabidopsis rosettes at different carbon dioxide concentrations. Plant Journal, 2009, 59, 826-839.	5.7	216
17	Oxygen Sensing and Signaling. Annual Review of Plant Biology, 2015, 66, 345-367.	18.7	212
18	Transcript and metabolite profiling of the adaptive response to mild decreases in oxygen concentration in the roots of arabidopsis plants. Annals of Botany, 2009, 103, 269-280.	2.9	197

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19	Regulation of respiration in plants: A role for alternative metabolic pathways. Journal of Plant Physiology, 2011, 168, 1434-1443.	3.5	189
20	Phloem Metabolism and Function Have to Cope with Low Internal Oxygen. Plant Physiology, 2003, 131, 1529-1543.	4.8	186
21	Regulation of respiration when the oxygen availability changes. Physiologia Plantarum, 2009, 137, 383-391.	5.2	160
22	Comparative analysis between plant species of transcriptional and metabolic responses to hypoxia. New Phytologist, 2011, 190, 472-487.	7.3	157
23	Hypoxia responsive gene expression is mediated by various subsets of transcription factors and miRNAs that are determined by the actual oxygen availability. New Phytologist, 2011, 190, 442-456.	7.3	149
24	Community recommendations on terminology and procedures used in flooding and low oxygen stress research. New Phytologist, 2017, 214, 1403-1407.	7.3	146
25	An apical hypoxic niche sets the pace of shoot meristem activity. Nature, 2019, 569, 714-717.	27.8	137
26	Alternative oxidase: a defence against metabolic fluctuations?. Physiologia Plantarum, 2009, 137, 371-382.	5.2	134
27	Diurnal Changes of Polysome Loading Track Sucrose Content in the Rosette of Wild-Type Arabidopsis and the Starchless <i>pgm</i> Mutant Â Â. Plant Physiology, 2013, 162, 1246-1265.	4.8	133
28	Redox regulation in shoot growth, SAM maintenance and flowering. Current Opinion in Plant Biology, 2016, 29, 121-128.	7.1	117
29	Lipid Storage Metabolism Is Limited by the Prevailing Low Oxygen Concentrations within Developing Seeds of Oilseed Rape. Plant Physiology, 2003, 133, 2048-2060.	4.8	116
30	Discovering plant metabolic biomarkers for phenotype prediction using an untargeted approach. Plant Biotechnology Journal, 2010, 8, 900-911.	8.3	113
31	Regulation of Primary Metabolism in Response to Low Oxygen Availability as Revealed by Carbon and Nitrogen Isotope Redistribution. Plant Physiology, 2016, 170, 43-56.	4.8	105
32	An Optical Multifrequency Phase-Modulation Method Using Microbeads for Measuring Intracellular Oxygen Concentrations in Plants. Biophysical Journal, 2005, 89, 1339-1345.	0.5	97
33	The stability and nuclear localization of the transcription factor <scp>RAP</scp>2.12 are dynamically regulated by oxygen concentration. Plant, Cell and Environment, 2015, 38, 1094-1103.	5.7	95
34	Combined Transcript and Metabolite Profiling of Arabidopsis Leaves Reveals Fundamental Effects of the Thiol-Disulfide Status on Plant Metabolism Â Â. Plant Physiology, 2006, 141, 412-422.	4.8	93
35	Analysis of alanine aminotransferase in various organs of soybean (Glycine max) and in dependence of different nitrogen fertilisers during hypoxic stress. Amino Acids, 2010, 39, 1043-1053.	2.7	91
36	Structure of the Developing Pea Seed Coat and the Post-phloem Transport Pathway of Nutrients. Annals of Botany, 2003, 91, 729-737.	2.9	90

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37	Oxygen Sensing and Integrative Stress Signaling in Plants. Plant Physiology, 2018, 176, 1131-1142.	4.8	89
38	Inhibition of de Novo Pyrimidine Synthesis in Growing Potato Tubers Leads to a Compensatory Stimulation of the Pyrimidine Salvage Pathway and a Subsequent Increase in Biosynthetic Performance. Plant Cell, 2005, 17, 2077-2088.	6.6	86
39	A Trihelix DNA Binding Protein Counterbalances Hypoxia-Responsive Transcriptional Activation in Arabidopsis. PLoS Biology, 2014, 12, e1001950.	5.6	86
40	Phloem Import and Storage Metabolism Are Highly Coordinated by the Low Oxygen Concentrations within Developing Wheat Seeds. Plant Physiology, 2004, 135, 1809-1821.	4.8	84
41	The Composition of Plant Mitochondrial Supercomplexes Changes with Oxygen Availability. Journal of Biological Chemistry, 2011, 286, 43045-43053.	3.4	82
42	Oxygen Sensing via the Ethylene Response Transcription Factor RAP2.12 Affects Plant Metabolism and Performance under Both Normoxia and Hypoxia. Plant Physiology, 2016, 172, 141-153.	4.8	82
43	Members of the aquaporin family in the developing pea seed coat include representatives of the PIP, TIP, and NIP subfamilies. Plant Molecular Biology, 2003, 53, 655-667.	3.9	78
44	A rapid approach for phenotypeâ€screening and database independent detection of cSNP/protein polymorphism using mass accuracy precursor alignment. Proteomics, 2008, 8, 4214-4225.	2.2	78
45	Nighttime Sugar Starvation Orchestrates Gibberellin Biosynthesis and Plant Growth in <i>Arabidopsis</i>. Plant Cell, 2013, 25, 3760-3769.	6.6	76
46	Decreased Expression of Cytosolic Pyruvate Kinase in Potato Tubers Leads to a Decline in Pyruvate Resulting in an in Vivo Repression of the Alternative Oxidase Â. Plant Physiology, 2008, 148, 1640-1654.	4.8	73
47	Multiparametric realâ€time sensing of cytosolic physiology links hypoxia responses to mitochondrial electron transport. New Phytologist, 2019, 224, 1668-1684.	7.3	69
48	Molecular oxygen as a signaling component in plant development. New Phytologist, 2021, 229, 24-35.	7.3	69
49	Optical Oxygen Micro- and Nanosensors for Plant Applications. Sensors, 2012, 12, 7015-7032.	3.8	61
50	Modification of OsSUT1 gene expression modulates the salt response of rice Oryza sativa cv. Taipei 309. Plant Science, 2012, 182, 101-111.	3.6	60
51	Low-oxygen response is triggered by an ATP-dependent shift in oleoyl-CoA in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12101-E12110.	7.1	55
52	Differential physiological responses of different rice (Oryza sativa) cultivars to elevated night temperature during vegetative growth. Functional Plant Biology, 2014, 41, 437.	2.1	45
53	Isolation and characterization of three new PGPR and their effects on the growth of <i>Arabidopsis</i> and <i>Datura</i> plants. Journal of Plant Interactions, 2017, 12, 1-6.	2.1	45
54	A Naturally Associated Rhizobacterium of Arabidopsis thaliana Induces a Starvation-Like Transcriptional Response while Promoting Growth. PLoS ONE, 2011, 6, e29382.	2.5	44

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55	HBI1 Mediates the Trade-off between Growth and Immunity through Its Impact on Apoplastic ROS Homeostasis. Cell Reports, 2019, 28, 1670-1678.e3.	6.4	44
56	Remobilization of pollutants during extreme flood events poses severe risks to human and environmental health. Journal of Hazardous Materials, 2022, 421, 126691.	12.4	43
57	MAPA Distinguishes Genotype-Specific Variability of Highly Similar Regulatory Protein Isoforms in Potato Tuber. Journal of Proteome Research, 2011, 10, 2979-2991.	3.7	42
58	Hypoxic Conditions in Crown Galls Induce Plant Anaerobic Responses That Support Tumor Proliferation. Frontiers in Plant Science, 2019, 10, 56.	3.6	38
59	Misexpression of a Chloroplast Aspartyl Protease Leads to Severe Growth Defects and Alters Carbohydrate Metabolism in Arabidopsis Â Â. Plant Physiology, 2012, 160, 1237-1250.	4.8	34
60	Time course effects on primary metabolism of potato (Solanum tuberosum) tuber tissue after mechanical impact. Postharvest Biology and Technology, 2010, 56, 109-116.	6.0	32
61	Unraveling the role of fermentation in the mode of action of acetolactate synthase inhibitors by metabolic profiling. Journal of Plant Physiology, 2011, 168, 1568-1575.	3.5	30
62	The K⁺ battery-regulating Arabidopsis K⁺ channel AKT2 is under the control of multiple post-translational steps. Plant Signaling and Behavior, 2011, 6, 558-562.	2.4	30
63	Fermentation and alternative oxidase contribute to the action of amino acid biosynthesis-inhibiting herbicides. Journal of Plant Physiology, 2015, 175, 102-112.	3.5	27
64	HRE-Type Genes are Regulated by Growth-Related Changes in Internal Oxygen Concentrations During the Normal Development of Potato (Solanum tuberosum) Tubers. Plant and Cell Physiology, 2011, 52, 1957-1972.	3.1	25
65	Plant-growth promoting effect of newly isolated rhizobacteria varies between two Arabidopsis ecotypes. Plant Signaling and Behavior, 2012, 7, 623-627.	2.4	23
66	Electrodiffusional Uptake of Organic Cations by Pea Seed Coats. Further Evidence for Poorly Selective Pores in the Plasma Membrane of Seed Coat Parenchyma Cells. Plant Physiology, 2001, 126, 1688-1697.	4.8	19
67	Microbacterium yannicii sp. nov., isolated from Arabidopsis thaliana roots. International Journal of Systematic and Evolutionary Microbiology, 2012, 62, 822-826.	1.7	19
68	Volatiles of rhizobacteriaSerratiaandStenotrophomonasalter growth and metabolite composition ofArabidopsis thaliana. Plant Biology, 2019, 21, 109-119.	3.8	16
69	Modeling alternatives for interpreting the change in oxygenâ€consumption rates during hypoxic conditions. New Phytologist, 2011, 190, 273-276.	7.3	12
70	The ACBP1-RAP2.12 signalling hub: A new perspective on integrative signalling during hypoxia in plants. Plant Signaling and Behavior, 2019, 14, e1651184.	2.4	12
71	New challenges in biophotonics: laser-based fluoroimmuno analysis and in-vivo optical oxygen monitoring. , 2005, , .		6
72	Conducting Molecular Biomarker Discovery Studies in Plants. Methods in Molecular Biology, 2012, 918, 127-150.	0.9	6

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73	Comparison of mitochondrial gene expression and polysome loading in different tobacco tissues. Plant Methods, 2017, 13, 112.	4.3	3
74	Aquaporins. , 2004, , 109-120.		1