Astrid Wingler

List of Publications by Year
in descending order

72 papers	6,572 citations	76326 40 h-index	88630 70 g-index
76 all docs	76 docs citations	76 times ranked	7004 citing authors

#	Article	IF	Citations
1	Photorespiration: metabolic pathways and their role in stress protection. Philosophical Transactions of the Royal Society B: Biological Sciences, 2000, 355, 1517-1529.	4.0	647
2	Inhibition of SNF1-Related Protein Kinase1 Activity and Regulation of Metabolic Pathways by Trehalose-6-Phosphate Â Â. Plant Physiology, 2009, 149, 1860-1871.	4.8	479
3	The role of sugars in integrating environmental signals during the regulation of leaf senescence. Journal of Experimental Botany, 2006, 57, 391-399.	4.8	363
4	Metabolic regulation of leaf senescence: interactions of sugar signalling with biotic and abiotic stress responses. Plant Biology, 2008, 10, 50-62.	3.8	236
5	Regulation of Leaf Senescence by Cytokinin, Sugars, and Light. Plant Physiology, 1998, 116, 329-335.	4.8	235
6	How Do Sugars Regulate Plant Growth and Development? New Insight into the Role of Trehalose-6-Phosphate. Molecular Plant, 2013, 6, 261-274.	8.3	231
7	The role of photorespiration during drought stress: an analysis utilizing barley mutants with reduced activities of photorespiratory enzymes. Plant, Cell and Environment, 1999, 22, 361-373.	5.7	222
8	Effect of sugar-induced senescence on gene expression and implications for the regulation of senescence in Arabidopsis. Planta, 2006, 224, 556-568.	3.2	215
9	The function of trehalose biosynthesis in plants. Phytochemistry, 2002, 60, 437-440.	2.9	198
10	Characterization of Markers to Determine the Extent and Variability of Leaf Senescence in Arabidopsis. A Metabolic Profiling Approach. Plant Physiology, 2005, 138, 898-908.	4.8	192
11	Trehalose 6-Phosphate Is Required for the Onset of Leaf Senescence Associated with High Carbon Availability Â Â. Plant Physiology, 2012, 158, 1241-1251.	4.8	180
12	Spatial patterns and metabolic regulation of photosynthetic parameters during leaf senescence. New Phytologist, 2004, 161, 781-789.	7.3	173
13	Trehalose Induces the ADP-Glucose Pyrophosphorylase Gene,ApL3, and Starch Synthesis in Arabidopsis. Plant Physiology, 2000, 124, 105-114.	4.8	168
14	The Trehalose 6-Phosphate/SnRK1 Signaling Pathway Primes Growth Recovery following Relief of Sink Limitation Â Â. Plant Physiology, 2013, 162, 1720-1732.	4.8	162
15	Trehalose and Trehalase in Arabidopsis. Plant Physiology, 2001, 125, 1086-1093.	4.8	159
16	Induction of Trehalase in Arabidopsis Plants Infected With the Trehalose-Producing Pathogen Plasmodiophora brassicae. Molecular Plant-Microbe Interactions, 2002, 15, 693-700.	2.6	151
17	Interactions of abscisic acid and sugar signalling in the regulation of leaf senescence. Planta, 2004, 219, 765-72.	3.2	137
18	Phosphoenolpyruvate Carboxykinase Is Involved in the Decarboxylation of Aspartate in the Bundle Sheath of Maize1. Plant Physiology, 1999, 120, 539-546.	4.8	136

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19	Effect of reduced arginine decarboxylase activity on salt tolerance and on polyamine formation during salt stress in Arabidopsis thaliana. Physiologia Plantarum, 2004, 121, 101-107.	5.2	131
20	Cytosolic pyruvate,orthophosphate dikinase functions in nitrogen remobilization during leaf senescence and limits individual seed growth and nitrogen content. Plant Journal, 2010, 62, 641-652.	5.7	129
21	Transitioning to the Next Phase: The Role of Sugar Signaling throughout the Plant Life Cycle. Plant Physiology, 2018, 176, 1075-1084.	4.8	124
22	Trehalose metabolism in Arabidopsis: occurrence of trehalose and molecular cloning and characterization of trehaloseâ€6â€phosphate synthase homologues. Journal of Experimental Botany, 2001, 52, 1817-1826.	4.8	121
23	Sugars, senescence, and ageing in plants and heterotrophic organisms. Journal of Experimental Botany, 2009, 60, 1063-1066.	4.8	113
24	Myrteae phylogeny, calibration, biogeography and diversification patterns: Increased understanding in the most species rich tribe of Myrtaceae. Molecular Phylogenetics and Evolution, 2017, 109, 113-137.	2.7	110
25	Global gene flow releases invasive plants from environmental constraints on genetic diversity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4218-4227.	7.1	108
26	Status of Phenological Research Using Sentinel-2 Data: A Review. Remote Sensing, 2020, 12, 2760.	4.0	96
27	Up-regulation of biosynthetic processes associated with growth by trehalose 6-phosphate. Plant Signaling and Behavior, 2010, 5, 386-392.	2.4	78
28	Effects of varied soil nitrogen supply on Norway spruce (Picea abies [L.] Karst.). Plant and Soil, 1996, 186, 361-369.	3.7	69
29	Natural variation in the regulation of leaf senescence and relation to other traits in Arabidopsis. Plant, Cell and Environment, 2005, 28, 223-231.	5.7	67
30	Photorespiratory metabolism of glyoxylate and formate in glycine-accumulating mutants of barley and Amaranthus edulis. Planta, 1999, 207, 518-526.	3.2	63
31	Genetic Variation Suggests Interaction between Cold Acclimation and Metabolic Regulation of Leaf Senescence. Plant Physiology, 2007, 143, 434-446.	4.8	62
32	Induction of ApL3 Expression by Trehalose Complements the Starch-Deficient Arabidopsis Mutantadg2-1 Lacking ApL1, the Large Subunit of ADP-Glucose Pyrophosphorylase. Plant Physiology, 2001, 126, 883-889.	4.8	61
33	Crops for Carbon Farming. Frontiers in Plant Science, 2021, 12, 636709.	3.6	57
34	Are Isocitrate Lyase and Phosphoenolpyruvate Carboxykinase Involved in Gluconeogenesis during Senescence of Barley Leaves and Cucumber Cotyledons?. Plant and Cell Physiology, 2000, 41, 960-967.	3.1	56
35	Comparison of signaling interactions determining annual and perennial plant growth in response to low temperature. Frontiers in Plant Science, 2014, 5, 794.	3.6	56
36	Axenic mycorrhization of wild type and transgenic hybrid aspen expressing T-DNA indoleacetic acid-biosynthetic genes. Trees - Structure and Function, 1996, 11, 59.	1.9	51

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37	Control of photosynthesis in barley plants with reduced activities of glycine decarboxylase. Planta, 1997, 202, 171-178.	3.2	50
38	QTL analysis for sugarâ€regulated leaf senescence supports floweringâ€dependent and â€independent senescence pathways. New Phytologist, 2010, 185, 420-433.	7.3	49
39	Ammonium can stimulate nitrate and nitrite reductase in the absence of nitrate in Clematis vitalba. Plant, Cell and Environment, 1999, 22, 859-866.	5.7	46
40	Effects of varied soil nitrogen supply on Norway spruce (Picea abies [L.] Karst.). Plant and Soil, 1996, 184, 291-298.	3.7	42
41	Overexpression of GCN2â€type protein kinase in wheat has profound effects on free amino acid concentration and gene expression. Plant Biotechnology Journal, 2012, 10, 328-340.	8.3	41
42	Limitation of Grassland Productivity by Low Temperature and Seasonality of Growth. Frontiers in Plant Science, 2016, 7, 1130.	3.6	39
43	Adaptation to altitude affects the senescence response to chilling in the perennial plant Arabis alpina. Journal of Experimental Botany, 2015, 66, 355-367.	4.8	36
44	Floral uniformity through evolutionary time in a speciesâ€rich tree lineage. New Phytologist, 2019, 221, 1597-1608.	7.3	36
45	Classification of intra-specific variation in plant functional strategies reveals adaptation to climate. Annals of Botany, 2017, 119, 1343-1352.	2.9	35
46	Mechanisms of the light-dependent induction of cell death in tobacco plants with delayed senescence. Journal of Experimental Botany, 2005, 56, 2897-2905.	4.8	34
47	Influence of different nutrient regimes on the regulation of carbon metabolism in Norway spruce [Picea abies (L.) Karst.] seedlings. New Phytologist, 1994, 128, 323-330.	7.3	28
48	Sugars and the speed of lifeâ€"Metabolic signals that determine plant growth, development and death. Physiologia Plantarum, 2022, 174, e13656.	5.2	28
49	Mycorrhiza formation on Norway spruce (Picea abies) roots affects the pathway of anaplerotic CO2 fixation. Physiologia Plantarum, 1996, 96, 699-705.	5.2	26
50	Interactions between flowering and senescence regulation and the influence of low temperature in Arabidopsis and crop plants. Annals of Applied Biology, 2011, 159, 320-338.	2.5	26
51	Links between parallel evolution and systematic complexity in angiospermsâ€"A case study of floral development in Myrcia s.l. (Myrtaceae). Perspectives in Plant Ecology, Evolution and Systematics, 2017, 24, 11-24.	2.7	26
52	Systematic and evolutionary implications of stamen position in Myrteae (Myrtaceae). Botanical Journal of the Linnean Society, 2015, 179, 388-402.	1.6	25
53	Regulation of growth by the trehalose pathway. Plant Signaling and Behavior, 2013, 8, e26626.	2.4	24
54	Phenotypic plasticity masks rangeâ€wide genetic differentiation for vegetative but not reproductive traits in a shortâ€lived plant. Ecology Letters, 2021, 24, 2378-2393.	6.4	21

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55	Interactions Between Temperature and Sugars in the Regulation of Leaf Senescence in the Perennial Herb <i>Arabis alpina</i> L.^F. Journal of Integrative Plant Biology, 2012, 54, 595-605.	8.5	20
56	Autumn leaf phenology: discrepancies between <i>in situ</i> observations and satellite data at urban and rural sites. International Journal of Remote Sensing, 2018, 39, 8129-8150.	2.9	17
57	The Dynamic Plant: Capture, Transformation, and Management of Energy. Plant Physiology, 2018, 176, 961-966.	4.8	16
58	Interactions between sucrose and jasmonate signalling in the response to cold stress. BMC Plant Biology, 2020, 20, 176.	3.6	16
59	Effect of Exogenous Treatment with Nitric Oxide (NO) on Redox Homeostasis in Barley Seedlings (Hordeum vulgare L.) Under Copper Stress. Journal of Soil Science and Plant Nutrition, 0, , 1.	3.4	10
60	Determination of mannitol in ectomycorrhizal fungi and ectomycorrhizas by enzymatic micro-assays. Mycorrhiza, 1993, 3, 69-73.	2.8	7
61	Transcriptional or postâ€transcriptional regulation â€" how does a plant know when to senesce?. New Phytologist, 2007, 175, 7-9.	7.3	7
62	Linking integrative plant physiology with agronomy to sustain future plant production. Environmental and Experimental Botany, 2020, 178, 104125.	4.2	6
63	Short communication. Serine: glyoxylate aminotransferase exerts no control on photosynthesis. Journal of Experimental Botany, 1999, 50, 719-722.	4.8	5
64	The Role of Trehalose Metabolism in Chloroplast Development and Leaf Senescence. Advances in Photosynthesis and Respiration, 2013, , 551-565.	1.0	4
65	The Impact of Herbage Mass on Perennial Ryegrass Swards in Autumn on Autumn and over Winter Production and Characteristics. Agronomy, 2021, 11, 1140.	3.0	3
66	Integration of leaf metabolism and physiology by the trehalose pathway. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2008, 150, S195.	1.8	2
67	Effect of environmental factors on size and fecundity of field populations of<i>Impatiens glandulifera</i>. Plant Ecology and Diversity, 2020, 13, 413-424.	2.4	2
68	The effect of autumn closing date on over winter tissue turnover in perennial ryegrass (Lolium) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 22	2.9	1
69	Mycorrhiza formation on Norway spruce (Picea abies) roots affects the pathway of anaplerotic CO2 fixation. Physiologia Plantarum, 1996, 96, 699-705.	5.2	1
70	The wheat GCN2 signalling pathway: Does this kinase play an important role in stress signalling?. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2008, 150, S158.	1.8	0
71	The wheat GCN2 signalling pathway: Does this kinase play an important role in stress signalling?. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2008, 150, S191.	1.8	0
72	Effects of varied soil nitrogen supply on Norway spruce (Picea abies [L.] Karst.). Hydrobiologia, 1996, 186, 361-369.	2.0	0