Hans Weber

List of Publications by Year
in descending order

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75 papers	5,783 citations	66315 42 h-index	74108 75 g-index
78 all docs	78 docs citations	78 times ranked	4697 citing authors

#	Article	IF	Citations
1	The da1 mutation in wheat increases grain size under ambient and elevated CO₂ but not grain yield due to tradeâ€off between grain size and grain number. Plant-Environment Interactions, 2021, 2, 61-73.	0.7	9
2	Barley HISTIDINE KINASE 1 (HvHK1) coordinates transfer cell specification in the young endosperm. Plant Journal, 2020, 103, 1869-1884.	2.8	6
3	Wheat (Triticum aestivum L.) Breeding from 1891 to 2010 Contributed to Increasing Yield and Glutenin Contents but Decreasing Protein and Gliadin Contents. Journal of Agricultural and Food Chemistry, 2020, 68, 13247-13256.	2.4	51
4	Grain number and grain yield distribution along the spike remain stable despite breeding for high yield in winter wheat. PLoS ONE, 2018, 13, e0205452.	1.1	69
5	Down-regulation of the sucrose transporters HvSUT1 and HvSUT2 affects sucrose homeostasis along its delivery path in barley grains. Journal of Experimental Botany, 2017, 68, 4595-4612.	2.4	28
6	Grain yield and quality responses of wheat expressing a barley sucrose transporter to combined climate change factors. Journal of Experimental Botany, 2017, 68, 5511-5525.	2.4	42
7	Increasing abscisic acid levels by immunomodulation in barley grains induces precocious maturation without changing grain composition. Journal of Experimental Botany, 2016, 67, 2675-2687.	2.4	10
8	Metabolic and transcriptional transitions in barley glumes reveal a role as transitory resource buffers during endosperm filling. Journal of Experimental Botany, 2015, 66, 1397-1411.	2.4	35
9	Differential transcriptional networks associated with key phases of ingrowth wall construction in trans-differentiating epidermal transfer cells of Vicia faba cotyledons. BMC Plant Biology, 2015, 15, 103.	1.6	21
10	Hormone-mediated growth dynamics of the barley pericarp as revealed by magnetic resonance imaging and transcript profiling. Journal of Experimental Botany, 2015, 66, 6927-6943.	2.4	24
11	Gibberellin-to-abscisic acid balances govern development and differentiation of the nucellar projection of barley grains. Journal of Experimental Botany, 2014, 65, 5291-5304.	2.4	22
12	Increased grain yield and micronutrient concentration in transgenic winter wheat by ectopic expression of a barley sucrose transporter. Journal of Cereal Science, 2014, 60, 75-81.	1.8	33
13	Diverse accumulation and distribution of nutrient elements in developing wheat grain studied by laser ablation inductively coupled plasma mass spectrometry imaging. Metallomics, 2013, 5, 1276.	1.0	44
14	The plastid outer envelope protein OEP16 affects metabolic fluxes during ABA-controlled seed development and germination. Journal of Experimental Botany, 2012, 63, 1919-1936.	2.4	32
15	Subcellular analysis of starch metabolism in developing barley seeds using a non-aqueous fractionation method. Journal of Experimental Botany, 2012, 63, 2071-2087.	2.4	50
16	A somaclonal line SE7 of finger millet (Eleusine coracana) exhibits modified cytokinin homeostasis and increased grain yield. Journal of Experimental Botany, 2012, 63, 5497-5506.	2.4	23
17	A putative role for amino acid permeases in sink-source communication of barley tissues uncovered by RNA-seq. BMC Plant Biology, 2012, 12, 154.	1.6	46
18	Barley grains, deficient in cytosolic small subunit of ADPâ€glucose pyrophosphorylase, reveal coordinate adjustment of C:N metabolism mediated by an overlapping metabolicâ€hormonal control. Plant Journal, 2012, 69, 1077-1093.	2.8	36

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19	Differentiation of endosperm transfer cells of barley: a comprehensive analysis at the microâ€scale. Plant Journal, 2012, 71, 639-655.	2.8	42
20	454 Transcriptome Sequencing Suggests a Role for Two-Component Signalling in Cellularization and Differentiation of Barley Endosperm Transfer Cells. PLoS ONE, 2012, 7, e41867.	1.1	29
21	Hybrid embryos of Vicia faba develop enhanced sink strength, which is established during early development. Plant Journal, 2011, 65, 517-531.	2.8	10
22	Glucose and ethylene signalling pathways converge to regulate transâ€differentiation of epidermal transfer cells in Vicia narbonensis cotyledons. Plant Journal, 2011, 68, 987-998.	2.8	28
23	Development of maternal seed tissue in barley is mediated by regulated cell expansion and cell disintegration and coordinated with endosperm growth. Journal of Experimental Botany, 2011, 62, 1217-1227.	2.4	121
24	Sucrose non-fermenting kinase 1 (SnRK1) coordinates metabolic and hormonal signals during pea cotyledon growth and differentiation. Plant Journal, 2010, 61, 324-338.	2.8	122
25	The 2-oxoglutarate/malate translocator mediates amino acid and storage protein biosynthesis in pea embryos. Plant Journal, 2010, 61, 350-363.	2.8	22
26	De-regulation of abscisic acid contents causes abnormal endosperm development in the barley mutant seg8. Plant Journal, 2010, 64, 589-603.	2.8	59
27	Abscisic acid deficiency of developing pea embryos achieved by immunomodulation attenuates developmental phase transition and storage metabolism. Plant Journal, 2010, 64, 715-730.	2.8	21
28	Increasing Sucrose Uptake Capacity of Wheat Grains Stimulates Storage Protein Synthesis Â. Plant Physiology, 2010, 152, 698-710.	2.3	121
29	Amino acid metabolism at the maternalâ€“filial boundary of young barley seeds: a microdissection-based study. Planta, 2009, 230, 205-213.	1.6	35
30	ADP-Glucose Pyrophosphorylase-Deficient Pea Embryos Reveal Specific Transcriptional and Metabolic Changes of Carbon-Nitrogen Metabolism and Stress Responses Â. Plant Physiology, 2009, 149, 395-411.	2.3	78
31	Increasing amino acid supply in pea embryos reveals specific interactions of N and C metabolism, and highlights the importance of mitochondrial metabolism. Plant Journal, 2008, 55, 909-926.	2.8	110
32	Different Hormonal Regulation of Cellular Differentiation and Function in Nucellar Projection and Endosperm Transfer Cells: A Microdissection-Based Transcriptome Study of Young Barley Grains. Plant Physiology, 2008, 148, 1436-1452.	2.3	104
33	Uptake and allocation of carbon and nitrogen in Vicia narbonensis plants with increased seed sink strength achieved by seed-specific expression of an amino acid permease. Journal of Experimental Botany, 2007, 58, 3183-3195.	2.4	32
34	Antisense inhibition of the plastidial glucose-6-phosphate/phosphate translocator in Vicia seeds shifts cellular differentiation and promotes protein storage. Plant Journal, 2007, 51, 468-484.	2.8	42
35	Ectopic expression of phosphoenolpyruvate carboxylase inVicia narbonensisseeds: effects of improved nutrient status on seed maturation and transcriptional regulatory networks. Plant Journal, 2007, 51, 819-839.	2.8	36
36	Repressing the Expression of the SUCROSE NONFERMENTING-1-RELATED PROTEIN KINASE Gene in Pea Embryo Causes Pleiotropic Defects of Maturation Similar to an Abscisic Acid-Insensitive Phenotype. Plant Physiology, 2006, 140, 263-278.	2.3	121

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37	Gradients of lipid storage, photosynthesis and plastid differentiation in developing soybean seeds. New Phytologist, 2005, 167, 761-776.	3.5	109
38	MOLECULAR PHYSIOLOGY OF LEGUME SEED DEVELOPMENT. Annual Review of Plant Biology, 2005, 56, 253-279.	8.6	446
39	Ectopic Expression of an Amino Acid Transporter (VfAAP1) in Seeds of Vicia narbonensis and Pea Increases Storage Proteins. Plant Physiology, 2005, 137, 1236-1249.	2.3	145
40	Energy state and its control on seed development: starch accumulation is associated with high ATP and steep oxygen gradients within barley grains. Journal of Experimental Botany, 2004, 55, 1351-1359.	2.4	138
41	Seed-specific expression of a bacterial phosphoenolpyruvate carboxylase in Vicia narbonensis increases protein content and improves carbon economy. Plant Biotechnology Journal, 2004, 2, 211-219.	4.1	67
42	Seed Development and Differentiation: A Role for Metabolic Regulation. Plant Biology, 2004, 6, 375-386.	1.8	149
43	The role of invertases and hexose transporters in controlling sugar ratios in maternal and filial tissues of barley caryopses during early development. Plant Journal, 2003, 33, 395-411.	2.8	194
44	Energy status and its control on embryogenesis of legumes: ATP distribution within Vicia faba embryos is developmentally regulated and correlated with photosynthetic capacity. Plant Journal, 2003, 36, 318-329.	2.8	67
45	Differentiation of legume cotyledons as related to metabolic gradients and assimilate transport into seeds. Journal of Experimental Botany, 2003, 54, 503-512.	2.4	98
46	Energy Status and Its Control on Embryogenesis of Legumes. Embryo Photosynthesis Contributes to Oxygen Supply and Is Coupled to Biosynthetic Fluxes. Plant Physiology, 2003, 132, 1196-1206.	2.3	106
47	Peptide and Amino Acid Transporters Are Differentially Regulated during Seed Development and Germination in Faba Bean. Plant Physiology, 2003, 132, 1950-1960.	2.3	57
48	Legume embryos develop in a hypoxic environment. Journal of Experimental Botany, 2002, 53, 1099-1107.	2.4	135
49	Antisense-inhibition of ADP-glucose pyrophosphorylase in Vicia narbonensis seeds increases soluble sugars and leads to higher water and nitrogen uptake. Planta, 2002, 214, 954-964.	1.6	72
50	Spatial analysis of plant metabolism: Sucrose imaging within Vicia faba cotyledons reveals specific developmental patterns. Plant Journal, 2002, 29, 521-530.	2.8	112
51	A pea seed mutant affected in the differentiation of the embryonic epidermis is impaired in embryo growth and seed maturation. Development (Cambridge), 2002, 129, 1595-1607.	1.2	40
52	A pea seed mutant affected in the differentiation of the embryonic epidermis is impaired in embryo growth and seed maturation. Development (Cambridge), 2002, 129, 1595-607.	1.2	16
53	Control of storage protein accumulation during legume seed development. Journal of Plant Physiology, 2001, 158, 457-464.	1.6	50
54	Amino acid permeases in developing seeds of Vicia faba L.: expression precedes storage protein synthesis and is regulated by amino acid supply. Plant Journal, 2001, 28, 61-71.	2.8	107

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55	VFK1, a Vicia faba K+ channel involved in phloem unloading. Plant Journal, 2001, 27, 571-580.	2.8	90
56	Expression patterns and subcellular localization of a 52 kDa sucrose-binding protein homologue of Vicia faba (VfSBPL) suggest different functions during development. Plant Molecular Biology, 2001, 47, 461-474.	2.0	21
57	Sucrose transport into barley seeds: molecular characterization of two transporters and implications for seed development and starch accumulation. Plant Journal, 2000, 21, 455-467.	2.8	262
58	Antisense-inhibition of ADP-glucose pyrophosphorylase in developing seeds of Vicia narbonensis moderately decreases starch but increases protein content and affects seed maturation. Plant Journal, 2000, 24, 33-43.	2.8	56
59	Sugar levels altered by ectopic expression of a yeast-derived invertase affect cellular differentiation of developing cotyledons of Vicia narbonensis L.. Planta, 2000, 211, 325-334.	1.6	16
60	Phosphoenolpyruvate carboxylase in developing seeds of Vicia faba L.: gene expression and metabolic regulation. Planta, 1999, 208, 66-72.	1.6	56
61	Seed maturation: genetic programmes and control signals. Current Opinion in Plant Biology, 1999, 2, 33-38.	3.5	120
62	Highâ€resolution histographical mapping of glucose concentrations in developing cotyledons of Vicia faba in relation to mitotic activity and storage processes: glucose as a possible developmental trigger. Plant Journal, 1998, 15, 583-591.	2.8	135
63	Expression of a yeast-derived invertase in developing cotyledons ofVicia narbonensisalters the carbohydrate state and affects storage functions. Plant Journal, 1998, 16, 163-172.	2.8	94
64	Integration of carbohydrate and nitrogen metabolism during legume seed development: Implications for storage product synthesis. Journal of Plant Physiology, 1998, 152, 641-648.	1.6	22
65	Assimilate uptake and the regulation of seed development. Seed Science Research, 1998, 8, 331-346.	0.8	80
66	A role for sugar transporters during seed development: molecular characterization of a hexose and a sucrose carrier in fava bean seeds.. Plant Cell, 1997, 9, 895-908.	3.1	261
67	Cloning and characterization of full-length cDNA encoding sucrose phosphate synthase from faba bean. Gene, 1996, 178, 201-203.	1.0	17
68	Controlling seed development and seed size in Vicia faba: a role for seed coat-associated invertases and carbohydrate state. Plant Journal, 1996, 10, 823-834.	2.8	200
69	Sucrose metabolism during cotyledon development of Vicia faba L. is controlled by the concerted action of both sucrose-phosphate synthase and sucrose synthase: expression patterns, metabolic regulation and implications for seed development. Plant Journal, 1996, 9, 841-850.	2.8	108
70	Cell-type specific, coordinate expression of two ADP-glucose pyrophosphorylase genes in relation to starch biosynthesis during seed development of Vicia faba L.. Planta, 1995, 195, 352-61.	1.6	95
71	Seed Coat: Associated Invertases of Fava Bean Control Both Unloading and Storage Functions: Cloning of cDNAs and Cell Type: Specific Expression. Plant Cell, 1995, 7, 1835.	3.1	3
72	Control of Seed Storage Protein Gene Expression: New Aspects on an Old Problem. Journal of Plant Physiology, 1995, 145, 592-599.	1.6	32

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73	Embryogenesis of Vicia faba L.: Histodifferentiation in Relation to Starch and Storage Protein Synthesis. Journal of Plant Physiology, 1995, 147, 203-218.	1.6	90
74	A sucrose-synthase gene of Vicia faba L.: Expression pattern in developing seeds in relation to starch synthesis and metabolic regulation. Planta, 1993, 191, 394-401.	1.6	181
75	Changing Metabolic Pathways to Manipulate Legume Seed Maturation and Composition. Agronomy, 0, , 55-77.	0.2	0