

# Hans Weber

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9015235/publications.pdf>

Version: 2024-02-01

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	MOLECULAR PHYSIOLOGY OF LEGUME SEED DEVELOPMENT. Annual Review of Plant Biology, 2005, 56, 253-279.	8.6	446
2	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
3	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
4	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
5	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
6	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
7	Seed Development and Differentiation: A Role for Metabolic Regulation. Plant Biology, 2004, 6, 375-386.	1.8	149
8	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
9	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
10	High-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
11	Legume embryos develop in a hypoxic environment. Journal of Experimental Botany, 2002, 53, 1099-1107.	2.4	135
12	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
13	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
14	Increasing Sucrose Uptake Capacity of Wheat Grains Stimulates Storage Protein Synthesis. Plant Physiology, 2010, 152, 698-710.	2.3	121
15	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
16	Seed maturation: genetic programmes and control signals. Current Opinion in Plant Biology, 1999, 2, 33-38.	3.5	120
17	Spatial analysis of plant metabolism: Sucrose imaging within Vicia faba cotyledons reveals specific developmental patterns. Plant Journal, 2002, 29, 521-530.	2.8	112
18	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

#	ARTICLE	IF	CITATIONS
19	Gradients of lipid storage, photosynthesis and plastid differentiation in developing soybean seeds. <i>New Phytologist</i> , 2005, 167, 761-776.	3.5	109
20	Sucrose metabolism during cotyledon development of <i>Vicia faba</i> L. is controlled by the concerted action of both sucrose-phosphate synthase and sucrose synthase: expression patterns, metabolic regulation and implications for seed development. <i>Plant Journal</i> , 1996, 9, 841-850.	2.8	108
21	Amino acid permeases in developing seeds of <i>Vicia faba</i> L.: expression precedes storage protein synthesis and is regulated by amino acid supply. <i>Plant Journal</i> , 2001, 28, 61-71.	2.8	107
22	Energy Status and Its Control on Embryogenesis of Legumes. Embryo Photosynthesis Contributes to Oxygen Supply and Is Coupled to Biosynthetic Fluxes. <i>Plant Physiology</i> , 2003, 132, 1196-1206.	2.3	106
23	Different Hormonal Regulation of Cellular Differentiation and Function in Nucellar Projection and Endosperm Transfer Cells: A Microdissection-Based Transcriptome Study of Young Barley Grains. <i>Plant Physiology</i> , 2008, 148, 1436-1452.	2.3	104
24	Differentiation of legume cotyledons as related to metabolic gradients and assimilate transport into seeds. <i>Journal of Experimental Botany</i> , 2003, 54, 503-512.	2.4	98
25	Cell-type specific, coordinate expression of two ADP-glucose pyrophosphorylase genes in relation to starch biosynthesis during seed development of <i>Vicia faba</i> L.. <i>Planta</i> , 1995, 195, 352-61.	1.6	95
26	Expression of a yeast-derived invertase in developing cotyledons of <i>Vicia narbonensis</i> alters the carbohydrate state and affects storage functions. <i>Plant Journal</i> , 1998, 16, 163-172.	2.8	94
27	Embryogenesis of <i>Vicia faba</i> L.: Histodifferentiation in Relation to Starch and Storage Protein Synthesis. <i>Journal of Plant Physiology</i> , 1995, 147, 203-218.	1.6	90
28	VFK1, a <i>Vicia faba</i> K <sup>+</sup> channel involved in phloem unloading. <i>Plant Journal</i> , 2001, 27, 571-580.	2.8	90
29	Assimilate uptake and the regulation of seed development. <i>Seed Science Research</i> , 1998, 8, 331-346.	0.8	80
30	ADP-Glucose Pyrophosphorylase-Deficient Pea Embryos Reveal Specific Transcriptional and Metabolic Changes of Carbon-Nitrogen Metabolism and Stress Responses A. <i>Plant Physiology</i> , 2009, 149, 395-411.	2.3	78
31	Antisense-inhibition of ADP-glucose pyrophosphorylase in <i>Vicia narbonensis</i> seeds increases soluble sugars and leads to higher water and nitrogen uptake. <i>Planta</i> , 2002, 214, 954-964.	1.6	72
32	Grain number and grain yield distribution along the spike remain stable despite breeding for high yield in winter wheat. <i>PLoS ONE</i> , 2018, 13, e0205452.	1.1	69
33	Energy status and its control on embryogenesis of legumes: ATP distribution within <i>Vicia faba</i> embryos is developmentally regulated and correlated with photosynthetic capacity. <i>Plant Journal</i> , 2003, 36, 318-329.	2.8	67
34	Seed-specific expression of a bacterial phosphoenolpyruvate carboxylase in <i>Vicia narbonensis</i> increases protein content and improves carbon economy. <i>Plant Biotechnology Journal</i> , 2004, 2, 211-219.	4.1	67
35	De-regulation of abscisic acid contents causes abnormal endosperm development in the barley mutant <i>seg8</i> . <i>Plant Journal</i> , 2010, 64, 589-603.	2.8	59
36	Peptide and Amino Acid Transporters Are Differentially Regulated during Seed Development and Germination in Faba Bean. <i>Plant Physiology</i> , 2003, 132, 1950-1960.	2.3	57

#	ARTICLE	IF	CITATIONS
37	Phosphoenolpyruvate carboxylase in developing seeds of <i>Vicia faba</i> L.: gene expression and metabolic regulation. <i>Planta</i> , 1999, 208, 66-72.	1.6	56
38	Antisense-inhibition of ADP-glucose pyrophosphorylase in developing seeds of <i>Vicia narbonensis</i> moderately decreases starch but increases protein content and affects seed maturation. <i>Plant Journal</i> , 2000, 24, 33-43.	2.8	56
39	Wheat ( <i>Triticum aestivum</i> L.) Breeding from 1891 to 2010 Contributed to Increasing Yield and Glutenin Contents but Decreasing Protein and Gliadin Contents. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 13247-13256.	2.4	51
40	Control of storage protein accumulation during legume seed development. <i>Journal of Plant Physiology</i> , 2001, 158, 457-464.	1.6	50
41	Subcellular analysis of starch metabolism in developing barley seeds using a non-aqueous fractionation method. <i>Journal of Experimental Botany</i> , 2012, 63, 2071-2087.	2.4	50
42	A putative role for amino acid permeases in sink-source communication of barley tissues uncovered by RNA-seq. <i>BMC Plant Biology</i> , 2012, 12, 154.	1.6	46
43	Diverse accumulation and distribution of nutrient elements in developing wheat grain studied by laser ablation inductively coupled plasma mass spectrometry imaging. <i>Metallomics</i> , 2013, 5, 1276.	1.0	44
44	Antisense inhibition of the plastidial glucose-6-phosphate/phosphate translocator in <i>Vicia</i> seeds shifts cellular differentiation and promotes protein storage. <i>Plant Journal</i> , 2007, 51, 468-484.	2.8	42
45	Differentiation of endosperm transfer cells of barley: a comprehensive analysis at the microscale. <i>Plant Journal</i> , 2012, 71, 639-655.	2.8	42
46	Grain yield and quality responses of wheat expressing a barley sucrose transporter to combined climate change factors. <i>Journal of Experimental Botany</i> , 2017, 68, 5511-5525.	2.4	42
47	A pea seed mutant affected in the differentiation of the embryonic epidermis is impaired in embryo growth and seed maturation. <i>Development (Cambridge)</i> , 2002, 129, 1595-1607.	1.2	40
48	Ectopic expression of phosphoenolpyruvate carboxylase in <i>Vicia narbonensis</i> seeds: effects of improved nutrient status on seed maturation and transcriptional regulatory networks. <i>Plant Journal</i> , 2007, 51, 819-839.	2.8	36
49	Barley grains, deficient in cytosolic small subunit of ADP-glucose pyrophosphorylase, reveal coordinate adjustment of C:N metabolism mediated by an overlapping metabolic-hormonal control. <i>Plant Journal</i> , 2012, 69, 1077-1093.	2.8	36
50	Amino acid metabolism at the maternal-filial boundary of young barley seeds: a microdissection-based study. <i>Planta</i> , 2009, 230, 205-213.	1.6	35
51	Metabolic and transcriptional transitions in barley glumes reveal a role as transitory resource buffers during endosperm filling. <i>Journal of Experimental Botany</i> , 2015, 66, 1397-1411.	2.4	35
52	Increased grain yield and micronutrient concentration in transgenic winter wheat by ectopic expression of a barley sucrose transporter. <i>Journal of Cereal Science</i> , 2014, 60, 75-81.	1.8	33
53	Control of Seed Storage Protein Gene Expression: New Aspects on an Old Problem. <i>Journal of Plant Physiology</i> , 1995, 145, 592-599.	1.6	32
54	Uptake and allocation of carbon and nitrogen in <i>Vicia narbonensis</i> plants with increased seed sink strength achieved by seed-specific expression of an amino acid permease. <i>Journal of Experimental Botany</i> , 2007, 58, 3183-3195.	2.4	32

#	ARTICLE	IF	CITATIONS
55	The plastid outer envelope protein OEP16 affects metabolic fluxes during ABA-controlled seed development and germination. <i>Journal of Experimental Botany</i> , 2012, 63, 1919-1936.	2.4	32
56	454 Transcriptome Sequencing Suggests a Role for Two-Component Signalling in Cellularization and Differentiation of Barley Endosperm Transfer Cells. <i>PLoS ONE</i> , 2012, 7, e41867.	1.1	29
57	Glucose and ethylene signalling pathways converge to regulate <i>trans</i> -differentiation of epidermal transfer cells in <i>Vicia narbonensis</i> cotyledons. <i>Plant Journal</i> , 2011, 68, 987-998.	2.8	28
58	Down-regulation of the sucrose transporters HvSUT1 and HvSUT2 affects sucrose homeostasis along its delivery path in barley grains. <i>Journal of Experimental Botany</i> , 2017, 68, 4595-4612.	2.4	28
59	Hormone-mediated growth dynamics of the barley pericarp as revealed by magnetic resonance imaging and transcript profiling. <i>Journal of Experimental Botany</i> , 2015, 66, 6927-6943.	2.4	24
60	A somaclonal line SE7 of finger millet ( <i>Eleusine coracana</i> ) exhibits modified cytokinin homeostasis and increased grain yield. <i>Journal of Experimental Botany</i> , 2012, 63, 5497-5506.	2.4	23
61	Integration of carbohydrate and nitrogen metabolism during legume seed development: Implications for storage product synthesis. <i>Journal of Plant Physiology</i> , 1998, 152, 641-648.	1.6	22
62	The 2-oxoglutarate/malate translocator mediates amino acid and storage protein biosynthesis in pea embryos. <i>Plant Journal</i> , 2010, 61, 350-363.	2.8	22
63	Gibberellin-to-abscisic acid balances govern development and differentiation of the nucellar projection of barley grains. <i>Journal of Experimental Botany</i> , 2014, 65, 5291-5304.	2.4	22
64	Expression patterns and subcellular localization of a 52 kDa sucrose-binding protein homologue of <i>Vicia faba</i> (VfSBPL) suggest different functions during development. <i>Plant Molecular Biology</i> , 2001, 47, 461-474.	2.0	21
65	Abscisic acid deficiency of developing pea embryos achieved by immunomodulation attenuates developmental phase transition and storage metabolism. <i>Plant Journal</i> , 2010, 64, 715-730.	2.8	21
66	Differential transcriptional networks associated with key phases of ingrowth wall construction in trans-differentiating epidermal transfer cells of <i>Vicia faba</i> cotyledons. <i>BMC Plant Biology</i> , 2015, 15, 103.	1.6	21
67	Cloning and characterization of full-length cDNA encoding sucrose phosphate synthase from faba bean. <i>Gene</i> , 1996, 178, 201-203.	1.0	17
68	Sugar levels altered by ectopic expression of a yeast-derived invertase affect cellular differentiation of developing cotyledons of <i>Vicia narbonensis</i> L.. <i>Planta</i> , 2000, 211, 325-334.	1.6	16
69	A pea seed mutant affected in the differentiation of the embryonic epidermis is impaired in embryo growth and seed maturation. <i>Development (Cambridge)</i> , 2002, 129, 1595-607.	1.2	16
70	Hybrid embryos of <i>Vicia faba</i> develop enhanced sink strength, which is established during early development. <i>Plant Journal</i> , 2011, 65, 517-531.	2.8	10
71	Increasing abscisic acid levels by immunomodulation in barley grains induces precocious maturation without changing grain composition. <i>Journal of Experimental Botany</i> , 2016, 67, 2675-2687.	2.4	10
72	The <i>da1</i> mutation in wheat increases grain size under ambient and elevated CO <sub>2</sub> but not grain yield due to trade-off between grain size and grain number. <i>Plant-Environment Interactions</i> , 2021, 2, 61-73.	0.7	9

#	ARTICLE	IF	CITATIONS
73	Barley HISTIDINE KINASE 1 (HvHK1) coordinates transfer cell specification in the young endosperm. Plant Journal, 2020, 103, 1869-1884.	2.8	6
74	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
75	Changing Metabolic Pathways to Manipulate Legume Seed Maturation and Composition. Agronomy, 0, , 55-77.	0.2	0