Michael Melzer

List of Publications by Year
in descending order

99 papers	5,351 citations	61984 43 h-index	95266 68 g-index
105 all docs	105 docs citations	105 times ranked	6991 citing authors

#	Article	IF	Citations
1	PDX1.1-dependent biosynthesis of vitamin B6 protects roots from ammonium-induced oxidative stress. Molecular Plant, 2022, 15, 820-839.	8.3	28
2	Effector-mediated relocalization of a maize lipoxygenase protein triggers susceptibility toUstilago maydis. Plant Cell, 2022, 34, 2785-2805.	6.6	17
3	Expression of Flavodiiron Proteins Flv2-Flv4 in Chloroplasts of Arabidopsis and Tobacco Plants Provides Multiple Stress Tolerance. International Journal of Molecular Sciences, 2021, 22, 1178.	4.1	10
4	ATP-Dependent Clp Protease Subunit C1, HvClpC1, Is a Strong Candidate Gene for Barley Variegation Mutant luteostrians as Revealed by Genetic Mapping and Genomic Re-sequencing. Frontiers in Plant Science, 2021, 12, 664085.	3.6	2
5	The Arabidopsis AAC Proteins CIL and CIA2 Are Sub-functionalized Paralogs Involved in Chloroplast Development. Frontiers in Plant Science, 2021, 12, 681375.	3.6	6
6	A mechanistic view on lodging resistance in rye and wheat: a multiscale comparative study. Plant Biotechnology Journal, 2021, 19, 2646-2661.	8.3	16
7	The Jacalin-Related Lectin HvHorcH Is Involved in the Physiological Response of Barley Roots to Salt Stress. International Journal of Molecular Sciences, 2021, 22, 10248.	4.1	9
8	Mutation of the ALBOSTRIANS Ohnologous Gene HvCMF3 Impairs Chloroplast Development and Thylakoid Architecture in Barley. Frontiers in Plant Science, 2021, 12, 732608.	3.6	7
9	COMPOSITUM 1 contributes to the architectural simplification of barley inflorescence via meristem identity signals. Nature Communications, 2020, 11, 5138.	12.8	37
10	Providing an Additional Electron Sink by the Introduction of Cyanobacterial Flavodiirons Enhances Growth of A. thaliana Under Various Light Intensities. Frontiers in Plant Science, 2020, 11, 902.	3.6	75
11	The transcription factor WRKY22 is required during cryo-stress acclimation in Arabidopsis shoot tips. Journal of Experimental Botany, 2020, 71, 4993-5009.	4.8	8
12	Supernumerary B chromosomes of Aegilops speltoides undergo precise elimination in roots early in embryo development. Nature Communications, 2020, 11, 2764.	12.8	30
13	Barley strigolactone signalling mutant hvd14.d reveals the role of strigolactones in abscisic acidâ€dependent response to drought. Plant, Cell and Environment, 2020, 43, 2239-2253.	5.7	25
14	Barley HISTIDINE KINASE 1 (HvHK1) coordinates transfer cell specification in the young endosperm. Plant Journal, 2020, 103, 1869-1884.	5.7	6
15	Triacylglycerol and phytyl ester synthesis in Synechocystis sp. PCC6803. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6216-6222.	7.1	29
16	Photosynthetic characterization of flavodoxin-expressing tobacco plants reveals a high light acclimation-like phenotype. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148211.	1.0	13
17	PsbS contributes to photoprotection in Chlamydomonas reinhardtii independently of energy dissipation. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148183.	1.0	29
18	Leaf Variegation and Impaired Chloroplast Development Caused by a Truncated CCT Domain Gene in albostrians Barley. Plant Cell, 2019, 31, 1430-1445.	6.6	52

#	Article	IF	Citations
19	The zeaxanthin epoxidase is degraded along with the D1 protein during photoinhibition of photosystem II. Plant Direct, 2019, 3, e00185.	1.9	27
20	Preparation of Barley Roots for Histological, Structural, and Immunolocalization Studies Using Light and Electron Microscopy. Methods in Molecular Biology, 2019, 1900, 153-166.	0.9	1
21	Plasma membrane proteome analysis identifies a role of barley membrane steroid binding protein in root architecture response to salinity. Plant, Cell and Environment, 2018, 41, 1311-1330.	5.7	36
22	Proteomic Analysis of Plasmodesmata From Populus Cell Suspension Cultures in Relation With Callose Biosynthesis. Frontiers in Plant Science, 2018, 9, 1681.	3.6	32
23	Single cellâ€type analysis of cellular lipid remodelling in response to salinity in the epidermal bladder cells of the model halophyte <scp>Mesembryanthemum crystallinum</scp>. Plant, Cell and Environment, 2018, 41, 2390-2403.	5.7	22
24	Expression of a Plastid-Targeted Flavodoxin Decreases Chloroplast Reactive Oxygen Species Accumulation and Delays Senescence in Aging Tobacco Leaves. Frontiers in Plant Science, 2018, 9, 1039.	3.6	46
25	Iron Retention in Root Hemicelluloses Causes Genotypic Variability in the Tolerance to Iron Deficiency-Induced Chlorosis in Maize. Frontiers in Plant Science, 2018, 9, 557.	3.6	19
26	Regulation of Root Development and Architecture by Strigolactones under Optimal and Nutrient Deficiency Conditions. International Journal of Molecular Sciences, 2018, 19, 1887.	4.1	38
27	Dynamics of post-translationally modified histones during barley pollen embryogenesis in the presence or absence of the epi-drug trichostatin A. Plant Reproduction, 2017, 30, 95-105.	2.2	14
28	The Arabidopsis THO/TREX component TEX1 functionally interacts with MOS11 and modulates mRNA export and alternative splicing events. Plant Molecular Biology, 2017, 93, 283-298.	3.9	39
29	Choline transporterâ€like1 (<scp>CHER</scp>1) is crucial for plasmodesmata maturation in Arabidopsis thaliana. Plant Journal, 2017, 89, 394-406.	5.7	58
30	Identification and characterization of a plastidial phosphatidylglycerophosphate phosphatase in Arabidopsis thaliana. Plant Journal, 2017, 89, 221-234.	5.7	17
31	A specific role of iron in promoting meristematic cell division during adventitious root formation. Journal of Experimental Botany, 2017, 68, 4233-4247.	4.8	52
32	Photosynthesis in C₃â€“C₄intermediateMoricandiaspecies. Journal of Experimental Botany, 2017, 68, 191-206.	4.8	58
33	Plant Growth under Natural Light Conditions Provides Highly Flexible Short-Term Acclimation Properties toward High Light Stress. Frontiers in Plant Science, 2017, 8, 681.	3.6	82
34	Synthesis and transfer of galactolipids in the chloroplast envelope membranes of Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10714-10719.	7.1	50
35	PsbS interactions involved in the activation of energy dissipation in Arabidopsis. Nature Plants, 2016, 2, 15225.	9.3	105
36	Arabinogalactan proteins are involved in root hair development in barley. Journal of Experimental Botany, 2015, 66, 1245-1257.	4.8	34

#	Article	IF	Citations
37	Urea retranslocation from senescing Arabidopsis leaves is promoted by <scp>DUR</scp>3â€mediated urea retrieval from leaf apoplast. Plant Journal, 2015, 81, 377-387.	5.7	37
38	Root Hair Development in the Grasses: What We Already Know and What We Still Need to Know. Plant Physiology, 2015, 168, 407-414.	4.8	41
39	Tissue-Specific Accumulation and Regulation of Zeaxanthin Epoxidase in Arabidopsis Reflect the Multiple Functions of the Enzyme in Plastids. Plant and Cell Physiology, 2015, 56, 346-357.	3.1	70
40	The evolutionary context of root epidermis cell patterning in grasses (Poaceae). Plant Signaling and Behavior, 2014, 9, e27972.	2.4	33
41	Cellular dynamics during early barley pollen embryogenesis revealed by time-lapse imaging. Frontiers in Plant Science, 2014, 5, 675.	3.6	22
42	The transcript elongation factor SPT4/SPT5 is involved in auxin-related gene expression in Arabidopsis. Nucleic Acids Research, 2014, 42, 4332-4347.	14.5	54
43	Identification of MAIN, a factor involved in genome stability in the meristems of Arabidopsis thaliana. Plant Journal, 2013, 75, 469-483.	5.7	22
44	Distribution of indole-3-acetic acid in Petunia hybrida shoot tip cuttings and relationship between auxin transport, carbohydrate metabolism and adventitious root formation. Planta, 2013, 238, 499-517.	3.2	142
45	The auxins centrophenoxine and 2,4-D differ in their effects on non-directly induced chromosome doubling in anther culture of wheat (T. aestivum L.). Plant Biotechnology Reports, 2013, 7, 247-255.	1.5	17
46	OnPLS integration of transcriptomic, proteomic and metabolomic data shows multi-level oxidative stress responses in the cambium of transgenic hipI- superoxide dismutase Populus plants. BMC Genomics, 2013, 14, 893.	2.8	63
47	A <scp>TIR</scp>â€“<scp>NBS</scp> protein encoded by <scp>A</scp>rabidopsis <scp>C</scp>hilling <scp>S</scp>ensitive 1 (<scp>CHS</scp>1) limits chloroplast damage and cell death at low temperature. Plant Journal, 2013, 75, 539-552.	5.7	50
48	A dual role of tobacco hexokinase 1 in primary metabolism and sugar sensing. Plant, Cell and Environment, 2013, 36, 1311-1327.	5.7	64
49	The Conserved Chimeric Transcript UPGRADE2 Is Associated with Unreduced Pollen Formation and Is Exclusively Found in Apomictic Boechera Species. Plant Physiology, 2013, 163, 1640-1659.	4.8	31
50	Expression of the Minor Isoform Pea Ferredoxin in Tobacco Alters Photosynthetic Electron Partitioning and Enhances Cyclic Electron Flow Â. Plant Physiology, 2013, 161, 866-879.	4.8	27
51	Asymmetric growth of root epidermal cells is related to the differentiation of root hair cells in Hordeum vulgare (L.). Journal of Experimental Botany, 2013, 64, 5145-5155.	4.8	48
52	Blue-Native Page Analysis Validates Heterogeneity in the Thylakoids of Synechocystis 6803. Advanced Topics in Science and Technology in China, 2013, , 385-388.	0.1	0
53	Role of theAFRD1-encoded fumarate reductase in hypoxia and osmotolerance inArxula adeninivorans. FEMS Yeast Research, 2012, 12, 924-937.	2.3	4
54	Differential distribution of pigment-protein complexes in the Thylakoid membranes of Synechocystis 6803. Journal of Bioenergetics and Biomembranes, 2012, 44, 399-409.	2.3	7

#	Article	IF	Citations
55	Flavodoxin displays dose-dependent effects on photosynthesis and stress tolerance when expressed in transgenic tobacco plants. Planta, 2012, 236, 1447-1458.	3.2	55
56	Analysis of T-DNA integration and generative segregation in transgenic winter triticale (x) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 Td (	3.6	22
57	Arabidopsis senescence-associated protein DMP1 is involved in membrane remodeling of the ER and tonoplast. BMC Plant Biology, 2012, 12, 54.	3.6	58
58	Differentiation of endosperm transfer cells of barley: a comprehensive analysis at the microâ€scale. Plant Journal, 2012, 71, 639-655.	5.7	42
59	Heterosis manifestation during early Arabidopsis seedling development is characterized by intermediate gene expression and enhanced metabolic activity in the hybrids. Plant Journal, 2012, 71, 669-683.	5.7	117
60	Deficiency in riboflavin biosynthesis affects tetrapyrrole biosynthesis in etiolated Arabidopsis tissue. Plant Molecular Biology, 2012, 78, 77-93.	3.9	32
61	Cyanobacterial flavodoxin complements ferredoxin deficiency in knockedâ€down transgenic tobacco plants. Plant Journal, 2011, 65, 922-935.	5.7	51
62	An Arabidopsis GluTR Binding Protein Mediates Spatial Separation of 5-Aminolevulinic Acid Synthesis in Chloroplasts. Plant Cell, 2011, 23, 4476-4491.	6.6	96
63	The lipoxygenase-dependent oxygenation of lipid body membranes is promoted by a patatin-type phospholipase in cucumber cotyledons. Journal of Experimental Botany, 2011, 62, 749-760.	4.8	49
64	Targeted knockâ€out of a gene encoding sulfite reductase in the moss Physcomitrella patens affects gametophytic and sporophytic development. FEBS Letters, 2010, 584, 2271-2278.	2.8	18
65	Heterogeneity in thylakoid membrane proteome of Synechocystis 6803. Journal of Proteomics, 2010, 73, 976-991.	2.4	35
66	The transcript elongation factor FACT affects Arabidopsis vegetative and reproductive development and genetically interacts with HUB1/2. Plant Journal, 2010, 61, 686-697.	5.7	134
67	Plastidial Thioredoxin z Interacts with Two Fructokinase-Like Proteins in a Thiol-Dependent Manner: Evidence for an Essential Role in Chloroplast Development in Arabidopsis and Nicotiana benthamiana Â Â. Plant Cell, 2010, 22, 1498-1515.	6.6	281
68	Arabidopsis Chloroplastic Glutathione Peroxidases Play a Role in Cross Talk between Photooxidative Stress and Immune Responses Â Â. Plant Physiology, 2009, 150, 670-683.	4.8	171
69	The Role of Diglycosyl Lipids in Photosynthesis and Membrane Lipid Homeostasis in Arabidopsis. Plant Physiology, 2009, 150, 1147-1159.	4.8	76
70	Protein and Metabolite Analysis Reveals Permanent Induction of Stress Defense and Cell Regeneration Processes in a Tobacco Cell Suspension Culture. International Journal of Molecular Sciences, 2009, 10, 3012-3032.	4.1	28
71	Immunoelectron Microscopy for Locating Calvin Cycle Enzymes in the Thylakoids of Synechocystis 6803. Molecular Plant, 2009, 2, 32-42.	8.3	33
72	Chloroplastâ€generated reactive oxygen species play a major role in localized cell death during the nonâ€host interaction between tobacco and Xanthomonas campestris pv. vesicatoria. Plant Journal, 2009, 60, 962-973.	5.7	203

#	Article	IF	Citations
73	Molecular physiology of adventitious root formation in Petunia hybrida cuttings: involvement of wound response and primary metabolism. New Phytologist, 2009, 181, 613-625.	7.3	175
74	Transcript Elongation Factor TFIIS Is Involved in Arabidopsis Seed Dormancy. Journal of Molecular Biology, 2009, 386, 598-611.	4.2	73
75	Alternative Splicing Studies of the Reactive Oxygen Species Gene Network inPopulusReveal Two Isoforms of High-Isoelectric-Point Superoxide Dismutase Â Â. Plant Physiology, 2009, 149, 1848-1859.	4.8	33
76	Homologous recombination properties of OsRad51, a recombinase from rice. Plant Molecular Biology, 2008, 68, 479-491.	3.9	27
77	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.	4.8	104
78	Identification of a Novel Adenine Nucleotide Transporter in the Endoplasmic Reticulum of Arabidopsis. Plant Cell, 2008, 20, 438-451.	6.6	66
79	Limitation of nocturnal import of ATP into Arabidopsis chloroplasts leads to photooxidative damageâ€. Plant Journal, 2007, 50, 293-304.	5.7	80
80	Quantum dots--a versatile tool in plant science?. Journal of Nanobiotechnology, 2006, 4, 5.	9.1	27
81	Downregulation of high-isoelectric-point extracellular superoxide dismutase mediates alterations in the metabolism of reactive oxygen species and developmental disturbances in hybrid aspen. Plant Journal, 2006, 49, 135-148.	5.7	30
82	Functional Replacement of Ferredoxin by a Cyanobacterial Flavodoxin in Tobacco Confers Broad-Range Stress Tolerance. Plant Cell, 2006, 18, 2035-2050.	6.6	169
83	A proteome approach defines protective functions of tobacco leaf trichomes. Proteomics, 2005, 5, 2508-2518.	2.2	85
84	Hydrogen peroxide and expression of hipI-superoxide dismutase are associated with the development of secondary cell walls in Zinnia elegans. Journal of Experimental Botany, 2005, 56, 2085-2093.	4.8	72
85	Seed-specific promoters direct gene expression in non-seed tissue. Journal of Experimental Botany, 2004, 55, 1463-1471.	4.8	46
86	RNAi-Mediated Tocopherol Deficiency Impairs Photoassimilate Export in Transgenic Potato Plants. Plant Physiology, 2004, 135, 1256-1268.	4.8	157
87	Diurnal and Light-Regulated Expression of AtSTP1 in Guard Cells of Arabidopsis. Plant Physiology, 2003, 133, 528-537.	4.8	111
88	An Archaebacterial Topoisomerase Homolog Not Present in Other Eukaryotes Is Indispensable for Cell Proliferation of Plants. Current Biology, 2002, 12, 1787-1791.	3.9	113
89	High-level production of the non-cariogenic sucrose isomer palatinose in transgenic tobacco plants strongly impairs development. Planta, 2002, 214, 356-364.	3.2	31
90	Identification and properties of type I-signal peptidases ofBacillus amyloliquefaciens. FEBS Journal, 2002, 269, 458-469.	0.2	17

#	Article	IF	Citations
91	Postâ€translational modifications of the AFET3 gene productâ€”a component of the iron transport system in budding cells and mycelia of the yeast Arxula adeninivorans. Yeast, 2002, 19, 849-862.	1.7	34
92	Evidence for expression level-dependent modulation of carbohydrate status and viral resistance by the potato leafroll virus movement protein in transgenic tobacco plants. Plant Journal, 2001, 28, 529-543.	5.7	77
93	Assimilatory Sulfate Reduction in C3, C3-C4, and C4 Species ofFlaveria. Plant Physiology, 2001, 127, 543-550.	4.8	37
94	A Novel Superoxide Dismutase with a High Isoelectric Point in Higher Plants. Expression, Regulation, and Protein Localization. Plant Physiology, 2001, 126, 1668-1677.	4.8	98
95	AtSUC3, a gene encoding a new Arabidopsis sucrose transporter, is expressed in cells adjacent to the vascular tissue and in a carpel cell layer. Plant Journal, 2000, 24, 869-882.	5.7	10
96	AtSUC3, a gene encoding a new Arabidopsis sucrose transporter, is expressed in cells adjacent to the vascular tissue and in a carpel cell layer. Plant Journal, 2000, 24, 869-882.	5.7	106
97	Sucrose synthase activity does not restrict glycolysis in roots of transgenic potato plants under hypoxic conditions. Planta, 1999, 210, 41-49.	3.2	60
98	Purification, properties and in situ localization of the amphibolic enzymes D-ribulose 5-phosphate 3-epimerase and transketolase from spinach chloroplasts. FEBS Journal, 1998, 252, 237-244.	0.2	56
99	Expression of a luteoviral movement protein in transgenic plants leads to carbohydrate accumulation and reduced photosynthetic capacity in source leaves. Plant Journal, 1997, 12, 1045-1056.	5.7	80