Michel Havaux

List of Publications by Year in Descending Order

102 papers	9,840 citations	56 h-index	99 g-index
106 ext. papers	11,073 ext. citations	6.6 avg, IF	6.54 L-index

#	Paper	IF	Citations
102	Plastoquinone homeostasis in plant acclimation to light intensity.. *Photosynthesis Research*, **2022**, 1	3.7	0
101	A manipulation of carotenoid metabolism influence biomass partitioning and fitness in tomato.. *Metabolic Engineering*, **2022**,	9.7	2
100	Determination of ROS-Induced Lipid Peroxidation by HPLC-Based Quantification of Hydroxy Polyunsaturated Fatty Acids. *Methods in Molecular Biology*, **2022**, 181-189	1.4	1
99	Luminescence imaging of leaf damage induced by lipid peroxidation products and its modulation by -cyclocitral. *Physiologia Plantarum*, **2021**, 171, 246-259	4.6	5
98	A Multi-OMICs Approach Sheds Light on the Higher Yield Phenotype and Enhanced Abiotic Stress Tolerance in Tobacco Lines Expressing the Carrot -Gene. *Frontiers in Plant Science*, **2021**, 12, 624365	6.2	5
97	Mutation of the Atypical Kinase ABC1K3 Partially Rescues the PROTON GRADIENT REGULATION 6 Phenotype in. *Frontiers in Plant Science*, **2020**, 11, 337	6.2	14
96	Endoplasmic reticulum-mediated unfolded protein response is an integral part of singlet oxygen signalling in plants. *Plant Journal*, **2020**, 102, 1266-1280	6.9	13
95	Interplay between antioxidants in response to photooxidative stress in Arabidopsis. *Free Radical Biology and Medicine*, **2020**, 160, 894-907	7.8	7
94	Tanned or Sunburned: How Excessive Light Triggers Plant Cell Death. *Molecular Plant*, **2020**, 13, 1545-1555	14.4	8
93	-Cyclocitral and derivatives: Emerging molecular signals serving multiple biological functions. *Plant Physiology and Biochemistry*, **2020**, 155, 35-41	5.4	22
92	Plastoquinone In and Beyond Photosynthesis. *Trends in Plant Science*, **2020**, 25, 1252-1265	13.1	21
91	The Apocarotenoid -Cyclocitric Acid Elicits Drought Tolerance in Plants. *IScience*, **2019**, 19, 461-473	6.1	30
90	The function of PROTOPORPHYRINOGEN IX OXIDASE in chlorophyll biosynthesis requires oxidised plastoquinone in. *Communications Biology*, **2019**, 2, 159	6.7	16
89	Plastoquinone homoeostasis by proton gradient regulation 6 is essential for photosynthetic efficiency. *Communications Biology*, **2019**, 2, 220	6.7	14
88	OXI1 and DAD Regulate Light-Induced Cell Death Antagonistically through Jasmonate and Salicylate Levels. *Plant Physiology*, **2019**, 180, 1691-1708	6.6	16
87	Sensing -carotene oxidation in photosystem II to master plant stress tolerance. *New Phytologist*, **2019**, 223, 1776-1783	9.8	40
86	The plastoquinone pool outside the thylakoid membrane serves in plant photoprotection as a reservoir of singlet oxygen scavengers. *Plant, Cell and Environment*, **2018**, 41, 2277-2287	8.4	19

85	Resistance of native oak to recurrent drought conditions simulating predicted climatic changes in the Mediterranean region. *Plant, Cell and Environment*, **2018**, 41, 2299-2312	8.4	12
84	Chemical quenching of singlet oxygen by plastoquinols and their oxidation products in Arabidopsis. *Plant Journal*, **2018**, 95, 848	6.9	14
83	The Plastid Lipocalin LCNP Is Required for Sustained Photoprotective Energy Dissipation in Arabidopsis. *Plant Cell*, **2018**, 30, 196-208	11.6	56
82	Decoding β-Cyclocitral-Mediated Retrograde Signaling Reveals the Role of a Detoxification Response in Plant Tolerance to Photooxidative Stress. *Plant Cell*, **2018**, 30, 2495-2511	11.6	62
81	Enzymatic and Non-Enzymatic Mechanisms Contribute to Lipid Oxidation During Seed Aging. *Plant and Cell Physiology*, **2017**, 58, 925-933	4.9	31
80	Carnosic Acid and Carnosol, Two Major Antioxidants of Rosemary, Act through Different Mechanisms. *Plant Physiology*, **2017**, 175, 1381-1394	6.6	70
79	METHYLENE BLUE SENSITIVITY 1 (MBS1) is required for acclimation of Arabidopsis to singlet oxygen and acts downstream of β-cyclocitral. *Plant, Cell and Environment*, **2017**, 40, 216-226	8.4	50
78	Uncoupling High Light Responses from Singlet Oxygen Retrograde Signaling and Spatial-Temporal Systemic Acquired Acclimation. *Plant Physiology*, **2016**, 171, 1734-49	6.6	49
77	Singlet Oxygen-Induced Cell Death in Arabidopsis under High-Light Stress Is Controlled by OXI1 Kinase. *Plant Physiology*, **2016**, 170, 1757-71	6.6	71
76	Circadian Stress Regimes Affect the Circadian Clock and Cause Jasmonic Acid-Dependent Cell Death in Cytokinin-Deficient Arabidopsis Plants. *Plant Cell*, **2016**, 28, 1616-39	11.6	51
75	2-cysteine peroxiredoxins and thylakoid ascorbate peroxidase create a water-water cycle that is essential to protect the photosynthetic apparatus under high light stress conditions. *Plant Physiology*, **2015**, 167, 1592-603	6.6	90
74	Plant tolerance to excess light energy and photooxidative damage relies on plastoquinone biosynthesis. *Scientific Reports*, **2015**, 5, 10919	4.9	60
73	A proposed interplay between peroxidase, amine oxidase and lipoxygenase in the wounding-induced oxidative burst in Pisum sativum seedlings. *Phytochemistry*, **2015**, 112, 130-8	4	28
72	Key players of singlet oxygen-induced cell death in plants. *Frontiers in Plant Science*, **2015**, 6, 39	6.2	82
71	Arabidopsis lipocalins AtCHL and AtTIL have distinct but overlapping functions essential for lipid protection and seed longevity. *Plant, Cell and Environment*, **2014**, 37, 368-81	8.4	43
70	Dihydroactinidiolide, a high light-induced β-carotene derivative that can regulate gene expression and photoacclimation in Arabidopsis. *Molecular Plant*, **2014**, 7, 1248-51	14.4	67
69	Carotenoid oxidation products as stress signals in plants. *Plant Journal*, **2014**, 79, 597-606	6.9	271
68	Beyond Non-Photochemical Fluorescence Quenching: The Overlapping Antioxidant Functions of Zeaxanthin and Tocopherols. *Advances in Photosynthesis and Respiration*, **2014**, 583-603	1.7	20

67	A drought-sensitive barley variety displays oxidative stress and strongly increased contents in low-molecular weight antioxidant compounds during water deficit compared to a tolerant variety. *Journal of Plant Physiology*, **2013**, 170, 633-45	3.6	43
66	Promotion of cyclic electron transport around photosystem I during the evolution of NADP-malic enzyme-type C4 photosynthesis in the genus Flaveria. *New Phytologist*, **2013**, 199, 832-42	9.8	48
65	Thioredoxin m4 controls photosynthetic alternative electron pathways in Arabidopsis. *Plant Physiology*, **2013**, 161, 508-20	6.6	76
64	Light-induced acclimation of the Arabidopsis chlorina1 mutant to singlet oxygen. *Plant Cell*, **2013**, 25, 1445-62	11.6	110
63	Jasmonate: A decision maker between cell death and acclimation in the response of plants to singlet oxygen. *Plant Signaling and Behavior*, **2013**, 8, e26655	2.5	18
62	Nonenzymic carotenoid oxidation and photooxidative stress signalling in plants. *Journal of Experimental Botany*, **2013**, 64, 799-805	7	103
61	Chemical quenching of singlet oxygen by carotenoids in plants. *Plant Physiology*, **2012**, 158, 1267-78	6.6	289
60	Carotenoid oxidation products are stress signals that mediate gene responses to singlet oxygen in plants. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 5535-40	11.5	458
59	Using spontaneous photon emission to image lipid oxidation patterns in plant tissues. *Plant Journal* , **2011**, 67, 1103-15	6.9	70
58	Chloroplast lipid droplet type II NAD(P)H quinone oxidoreductase is essential for prenylquinone metabolism and vitamin K1 accumulation. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 14354-9	11.5	62
57	Enhanced photoprotection by protein-bound vs free xanthophyll pools: a comparative analysis of chlorophyll b and xanthophyll biosynthesis mutants. *Molecular Plant*, **2010**, 3, 576-93	14.4	136
56	Arabidopsis thaliana plastidial methionine sulfoxide reductases B, MSRBs, account for most leaf peptide MSR activity and are essential for growth under environmental constraints through a role in the preservation of photosystem antennae. *Plant Journal*, **2010**, 61, 271-82	6.9	56
55	Vitamin B6 deficient plants display increased sensitivity to high light and photo-oxidative stress. *BMC Plant Biology*, **2009**, 9, 130	5.3	89
54	The chloroplastic lipocalin AtCHL prevents lipid peroxidation and protects Arabidopsis against oxidative stress. *Plant Journal*, **2009**, 60, 691-702	6.9	60
53	Singlet oxygen in plants: production, detoxification and signaling. *Trends in Plant Science*, **2009**, 14, 219-28	13.1	498
52	A large gene cluster encoding peptide synthetases and polyketide synthases is involved in production of siderophores and oxidative stress response in the cyanobacterium Anabaena sp. strain PCC 7120. *Environmental Microbiology*, **2008**, 10, 2574-85	5.2	32
51	The PsaE subunit of photosystem I prevents light-induced formation of reduced oxygen species in the cyanobacterium Synechocystis sp. PCC 6803. *Biochimica Et Biophysica Acta - Bioenergetics*, **2008**, 1777, 308-16	4.6	28
50	Tocotrienols, the unsaturated forms of vitamin E, can function as antioxidants and lipid protectors in tobacco leaves. *Plant Physiology*, **2008**, 147, 764-78	6.6	63

49	Singlet oxygen is the major reactive oxygen species involved in photooxidative damage to plants. *Plant Physiology*, **2008**, 148, 960-8	6.6	399
48	Vitamin E is essential for the tolerance of Arabidopsis thaliana to metal-induced oxidative stress. *Plant, Cell and Environment*, **2008**, 31, 244-57	8.4	115
47	Elevated zeaxanthin bound to oligomeric LHCII enhances the resistance of Arabidopsis to photooxidative stress by a lipid-protective, antioxidant mechanism. *Journal of Biological Chemistry*, **2007**, 282, 22605-18	5.4	134
46	The light stress-induced protein ELIP2 is a regulator of chlorophyll synthesis in Arabidopsis thaliana. *Plant Journal*, **2007**, 50, 795-809	6.9	108
45	Chlorophyll thermofluorescence and thermoluminescence as complementary tools for the study of temperature stress in plants. *Photosynthesis Research*, **2007**, 93, 159-71	3.7	43
44	Zeaxanthin has enhanced antioxidant capacity with respect to all other xanthophylls in Arabidopsis leaves and functions independent of binding to PSII antennae. *Plant Physiology*, **2007**, 145, 1506-20	6.6	301
43	Lutein is needed for efficient chlorophyll triplet quenching in the major LHCII antenna complex of higher plants and effective photoprotection in vivo under strong light. *BMC Plant Biology*, **2006**, 6, 32	5.3	193
42	Suppression of both ELIP1 and ELIP2 in Arabidopsis does not affect tolerance to photoinhibition and photooxidative stress. *Plant Physiology*, **2006**, 141, 1264-73	6.6	77
41	Autoluminescence imaging: a non-invasive tool for mapping oxidative stress. *Trends in Plant Science* , **2006**, 11, 480-4	13.1	74
40	The chlorophyll-binding protein IsiA is inducible by high light and protects the cyanobacterium Synechocystis PCC6803 from photooxidative stress. *FEBS Letters*, **2005**, 579, 2289-93	3.8	99
39	Probing the FQR and NDH activities involved in cyclic electron transport around Photosystem I by the 'afterglow' luminescence. *Biochimica Et Biophysica Acta - Bioenergetics*, **2005**, 1709, 203-13	4.6	42
38	Cyclic electron flow around PSI monitored by afterglow luminescence in leaves of maize inbred lines (Zea mays L.): correlation with chilling tolerance. *Planta*, **2005**, 221, 567-79	4.7	33
37	Vitamin E protects against photoinhibition and photooxidative stress in Arabidopsis thaliana. *Plant Cell*, **2005**, 17, 3451-69	11.6	384
36	Photo-oxidative stress in a xanthophyll-deficient mutant of Chlamydomonas. *Journal of Biological Chemistry*, **2004**, 279, 6337-44	5.4	94
35	The effect of zeaxanthin as the only xanthophyll on the structure and function of the photosynthetic apparatus in Arabidopsis thaliana. *Journal of Biological Chemistry*, **2004**, 279, 13878-88	5.4	123
34	Early light-induced proteins protect Arabidopsis from photooxidative stress. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 4921-6	11.5	233
33	Cadmium distribution and microlocalization in oilseed rape (Brassica napus) after long-term growth on cadmium-contaminated soil. *Planta*, **2003**, 216, 939-50	4.7	156
32	A photosystem 1 psaFJ-null mutant of the cyanobacterium Synechocystis PCC 6803 expresses the isiAB operon under iron replete conditions. *FEBS Letters*, **2003**, 549, 52-6	3.8	54

31	Elimination of high-light-inducible polypeptides related to eukaryotic chlorophyll a/b-binding proteins results in aberrant photoacclimation in Synechocystis PCC6803. *Biochimica Et Biophysica Acta - Bioenergetics*, **2003**, 1557, 21-33	4.6	116
30	Spontaneous and thermoinduced photon emission: new methods to detect and quantify oxidative stress in plants. *Trends in Plant Science*, **2003**, 8, 409-13	13.1	94
29	Chloroplast membrane photostability in chlP transgenic tobacco plants deficient in tocopherols. *Plant Physiology*, **2003**, 132, 300-10	6.6	80
28	Photosynthesis and state transitions in mitochondrial mutants of Chlamydomonas reinhardtii affected in respiration. *Plant Physiology*, **2003**, 133, 2010-20	6.6	106
27	Zeaxanthin deficiency enhances the high light sensitivity of an ascorbate-deficient mutant of Arabidopsis. *Plant Physiology*, **2003**, 133, 748-60	6.6	140
26	Double mutation cpSRP43--/cpSRP54-- is necessary to abolish the cpSRP pathway required for thylakoid targeting of the light-harvesting chlorophyll proteins. *Plant Journal*, **2002**, 29, 531-43	6.9	65
25	Cyclic electron flow around photosystem I in C(3) plants. In vivo control by the redox state of chloroplasts and involvement of the NADH-dehydrogenase complex. *Plant Physiology*, **2002**, 128, 760-9	6.6	164
24	Leaf chlorosis in oilseed rape plants (Brassica napus) grown on cadmium-polluted soil: causes and consequences for photosynthesis and growth. *Planta*, **2001**, 212, 696-709	4.7	284
23	The protective functions of carotenoid and flavonoid pigments against excess visible radiation at chilling temperature investigated in Arabidopsis npq and tt mutants. *Planta*, **2001**, 213, 953-66	4.7	268
22	PSII-S gene expression, photosynthetic activity and abundance of plastid thioredoxin-related and lipid-associated proteins during chilling stress in Solanum species differing in freezing resistance. *Physiologia Plantarum*, **2001**, 113, 72-78	4.6	23
21	Salt shock-inducible photosystem I cyclic electron transfer in Synechocystis PCC6803 relies on binding of ferredoxin:NADP(+) reductase to the thylakoid membranes via its CpcD phycobilisome-linker homologous N-terminal domain. *Biochimica Et Biophysica Acta - Bioenergetics*, **2000**, 1457, 129-44	4.6	72
20	Photodamage of the photosynthetic apparatus and its dependence on the leaf developmental stage in the npq1 Arabidopsis mutant deficient in the xanthophyll cycle enzyme violaxanthin de-epoxidase. *Plant Physiology*, **2000**, 124, 273-84	6.6	201
19	Flavodoxin accumulation contributes to enhanced cyclic electron flow around photosystem I in salt-stressed cells of Synechocystis sp. strain PCC 6803. *Physiologia Plantarum*, **1999**, 105, 670-678	4.6	45
18	Photosynthetic light-harvesting function of carotenoids in higher-plant leaves exposed to high light irradiances. *Planta*, **1998**, 205, 242-250	4.7	26
17	Carotenoids as membrane stabilizers in chloroplasts. *Trends in Plant Science*, **1998**, 3, 147-151	13.1	501
16	Differential control of xanthophylls and light-induced stress proteins, as opposed to light-harvesting chlorophyll a/b proteins, during photosynthetic acclimation of barley leaves to light irradiance. *Plant Physiology*, **1998**, 118, 227-35	6.6	65
15	Probing Electron Transport through and around Photosystem II in vivo by the Combined Use of Photoacoustic Spectroscopy and Chlorophyll Fluorometry. *Israel Journal of Chemistry*, **1998**, 38, 247-256	3.4	12
14	Thylakoid membrane fluidity and thermostability during the operation of the xanthophyll cycle in higher-plant chloroplasts. *Biochimica Et Biophysica Acta - Biomembranes*, **1997**, 1330, 179-93	3.8	89

13	Photoacoustically monitored thermal energy dissipation and xanthophyll cycle carotenoids in higher plant leaves. *Journal of Photochemistry and Photobiology B: Biology*, **1997**, 40, 68-75	6.7	12
12	Photosynthesis, chlorophyll fluorescence, light-harvesting system and photoinhibition resistance of a zeaxanthin-accumulating mutant of Arabidopsis thaliana. *Journal of Photochemistry and Photobiology B: Biology*, **1996**, 34, 87-94	6.7	71
11	Temperature-dependent adjustment of the thermal stability of photosystem II in vivo: possible involvement of xanthophyll-cycle pigments. *Planta*, **1996**, 198, 324-333	4.7	161
10	Short-term responses of Photosystem I to heat stress : Induction of a PS II-independent electron transport through PS I fed by stromal components. *Photosynthesis Research*, **1996**, 47, 85-97	3.7	190
9	The cyclic electron pathways around photosystem I in Chlamydomonas reinhardtii as determined in vivo by photoacoustic measurements of energy storage. *Planta*, **1994**, 193, 251	4.7	86
8	Photoinhibition of photosynthesis in chilled potato leaves is not correlated with a loss of Photosystem-II activity : Preferential inactivation of Photosystem I. *Photosynthesis Research*, **1994**, 40, 75-92	3.7	140
7	The protective function of the xanthophyll cycle in photosynthesis. *FEBS Letters*, **1994**, 353, 147-50	3.8	62
6	Characterization of thermal damage to the photosynthetic electron transport system in potato leaves. *Plant Science*, **1993**, 94, 19-33	5.3	192
5	A theoretical and experimental analysis of the qP and q N coefficients of chlorophyll fluorescence quenching and their relation to photochemical and nonphotochemical events. *Photosynthesis Research*, **1991**, 27, 41-55	3.7	233
4	ENERGY DEPENDENT QUENCHING OF CHLOROPHYLL FLUORESCENCE and THERMAL ENERGY DISSIPATION IN INTACT LEAVES DURING INDUCTION OF PHOTOSYNTHESIS. *Photochemistry and Photobiology*, **1990**, 51, 481-486	3.6	12
3	Rapid screening for heat tolerance in Phaseolus species using the photoacoustic technique. *Plant Science*, **1987**, 48, 143-149	5.3	12
2	Photosynthetic responses of leaves to water stress, expressed by photoacoustics and related methods : I. Probing the photoacoustic method as an indicator for water stress in vivo. *Plant Physiology*, **1986**, 82, 827-33	6.6	55
1	Cyclocitric acid: a new apocarotenoid eliciting drought tolerance in plants		1