Ian M MÃ¸ller

List of Publications by Year
in descending order

109	9,568	61984 43	38395 95
papers	citations	h-index	g-index

112	112	112	9336
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxidative Modifications to Cellular Components in Plants. Annual Review of Plant Biology, 2007, 58, 459-481.	18.7	1,545
2	PLANTMITOCHONDRIA ANDOXIDATIVESTRESS: Electron Transport, NADPH Turnover, and Metabolism of Reactive Oxygen Species. Annual Review of Plant Biology, 2001, 52, 561-591.	14.3	1,481
3	Specific Aquaporins Facilitate the Diffusion of Hydrogen Peroxide across Membranes. Journal of Biological Chemistry, 2007, 282, 1183-1192.	3.4	1,086
4	ROS signalling â€“ specificity is required. Trends in Plant Science, 2010, 15, 370-374.	8.8	352
5	The multiplicity of dehydrogenases in the electron transport chain of plant mitochondria. Mitochondrion, 2008, 8, 47-60.	3.4	281
6	Protein carbonylation and metal-catalyzed protein oxidation in a cellular perspective. Journal of Proteomics, 2011, 74, 2228-2242.	2.4	213
7	Measurement of the activity and capacity of the alternative pathway in intact plant tissues: Identification of problems and possible solutions. Physiologia Plantarum, 1988, 72, 642-649.	5.2	184
8	The role of alternative oxidase in modulating carbon use efficiency and growth during macronutrient stress in tobacco cells. Journal of Experimental Botany, 2005, 56, 1499-1515.	4.8	160
9	Identification of oxidised proteins in the matrix of rice leaf mitochondria by immunoprecipitation and two-dimensional liquid chromatography-tandem mass spectrometry. Phytochemistry, 2004, 65, 1839-1851.	2.9	151
10	Direct evidence for the presence of a rotenone-resistant NADH dehydrogenase on the inner surface of the inner membrane of plant mitochondria. Physiologia Plantarum, 1982, 54, 267-274.	5.2	126
11	ATP sensing in living plant cells reveals tissue gradients and stress dynamics of energy physiology. ELife, 2017, 6, .	6.0	125
12	NADP-Utilizing Enzymes in the Matrix of Plant Mitochondria. Plant Physiology, 1990, 94, 1012-1018.	4.8	123
13	The Potato Tuber Mitochondrial Proteome Â Â. Plant Physiology, 2014, 164, 637-653.	4.8	122
14	Identification of 14 new phosphoproteins involved in important plant mitochondrial processes. FEBS Letters, 2003, 540, 141-146.	2.8	120
15	Monitoring reactive oxygen species formation and localisation in living cells by use of the fluorescent probe CMâ€H₂DCFDA and confocal laser microscopy. Physiologia Plantarum, 2009, 136, 369-383.	5.2	117
16	Proteomics of seed development, desiccation tolerance, germination and vigor. Plant Physiology and Biochemistry, 2015, 86, 1-15.	5.8	116
17	The role of NADP in the mitochondrial matrix. Trends in Plant Science, 1998, 3, 21-27.	8.8	113
18	Terrestrial plant methane production and emission. Physiologia Plantarum, 2012, 144, 201-209.	5.2	97

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19	Redox-mediated kick-start of mitochondrial energy metabolism drives resource-efficient seed germination. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 741-751.	7.1	96
20	NAD(P)H oxidase and peroxidase activities in purified plasma membranes from cauliflower inflorescences. Physiologia Plantarum, 1987, 71, 9-19.	5.2	94
21	Plant mitochondria â€“ past, present and future. Plant Journal, 2021, 108, 912-959.	5.7	94
22	Massive gene loss in mistletoe (Viscum, Viscaceae) mitochondria. Scientific Reports, 2015, 5, 17588.	3.3	90
23	NAD(P)H dehydrogenases on the inner surface of the inner mitochondrial membrane studied using inside-out submitochondrial particles. Physiologia Plantarum, 1991, 83, 357-365.	5.2	89
24	A specific role for Ca2+ in the oxidation of exogenous NADH by Jerusalem-artichoke (<i>Helianthus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	3.1	88
25	Phosphorylation of Formate Dehydrogenase in Potato Tuber Mitochondria. Journal of Biological Chemistry, 2003, 278, 26021-26030.	3.4	84
26	The Free NADH Concentration Is Kept Constant in Plant Mitochondria under Different Metabolic Conditions. Plant Cell, 2006, 18, 688-698.	6.6	84
27	NADH-Monodehydroascorbate Oxidoreductase Is One of the Redox Enzymes in Spinach Leaf Plasma Membranes1. Plant Physiology, 1998, 116, 1029-1036.	4.8	82
28	NAD(P)H-ubiquinone oxidoreductases in plant mitochondria. Journal of Bioenergetics and Biomembranes, 1993, 25, 377-384.	2.3	80
29	Protein oxidation in plant mitochondria detected as oxidized tryptophan. Free Radical Biology and Medicine, 2006, 40, 430-435.	2.9	77
30	The presence of a short redox chain in the membrane of intact potato tuber peroxisomes and the association of malate dehydrogenase with the peroxisomal membrane. Physiologia Plantarum, 1993, 88, 19-28.	5.2	73
31	Barth Syndrome: From Mitochondrial Dysfunctions Associated with Aberrant Production of Reactive Oxygen Species to Pluripotent Stem Cell Studies. Frontiers in Genetics, 2015, 6, 359.	2.3	73
32	The proteome of higher plant mitochondria. Mitochondrion, 2017, 33, 22-37.	3.4	71
33	Matrix Redox Physiology Governs the Regulation of Plant Mitochondrial Metabolism through Posttranslational Protein Modifications. Plant Cell, 2020, 32, 573-594.	6.6	70
34	Redox enzymes in the plant plasma membrane and their possible roles. Plant, Cell and Environment, 2000, 23, 1287-1302.	5.7	69
35	Nitric oxide regulation of plant metabolism. Molecular Plant, 2022, 15, 228-242.	8.3	61
36	Direct evidence for the presence of two external NAD(P)H dehydrogenases coupled to the electron transport chain in plant mitochondria. FEBS Letters, 1995, 373, 307-309.	2.8	60

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37	Evidence for the presence of two rotenone-insensitive NAD(P)H dehydrogenases on the inner surface of the inner membrane of potato tuber mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 1996, 1276, 133-139.	1.0	59
38	The negative surface charge density of plasmalemma vesicles from wheat and oat roots. FEBS Letters, 1984, 167, 181-185.	2.8	56
39	Regulation of malate oxidation in plant mitochondria. Response to rotenone and exogenous NAD+. Biochemical Journal, 1982, 208, 703-711.	3.1	55
40	Salicylhydroxamic acid-stimulated NADH oxidation by purified plasmalemma vesicles from wheat roots. Physiologia Plantarum, 1986, 68, 67-74.	5.2	52
41	Effect of calcium ions and inhibitors on internal NAD(P)H dehydrogenases in plant mitochondria. FEBS Journal, 1991, 202, 617-623.	0.2	48
42	[41] Isolation of submitochondrial particles with different polarities. Methods in Enzymology, 1987, , 442-453.	1.0	47
43	The function of glycine decarboxylase complex is optimized to maintain high photorespiratory flux via buffering of its reaction products. Mitochondrion, 2014, 19, 357-364.	3.4	47
44	Intracellular Signaling by Diffusion: Can Waves of Hydrogen Peroxide Transmit Intracellular Information in Plant Cells?. Frontiers in Plant Science, 2012, 3, 295.	3.6	44
45	MULocDeep: A deep-learning framework for protein subcellular and suborganellar localization prediction with residue-level interpretation. Computational and Structural Biotechnology Journal, 2021, 19, 4825-4839.	4.1	43
46	Protein phosphorylation/dephosphorylation in the inner membrane of potato tuber mitochondria. FEBS Letters, 2000, 475, 213-217.	2.8	42
47	Oxygen consumption by purified plasmalemma vesicles from wheat roots. FEBS Letters, 1985, 193, 180-184.	2.8	41
48	The oxidation of cytosolic NAD(P)H by external NAD(P)H dehydrogenases in the respiratory chain of plant mitochondria. Physiologia Plantarum, 1997, 100, 85-90.	5.2	41
49	Oxidation and reduction of pyridine nucleotides in alamethicin-permeabilized plant mitochondria. Biochemical Journal, 2004, 380, 193-202.	3.7	40
50	Two Separate Transhydrogenase Activities Are Present in Plant Mitochondria. Biochemical and Biophysical Research Communications, 1999, 265, 106-111.	2.1	39
51	Comparison of the properties of plasmalemma vesicles purified from wheat roots by phase partitioning and by discontinuous sucrose gradient centrifugation. Physiologia Plantarum, 1986, 68, 59-66.	5.2	38
52	The Mitogenome of Norway Spruce and a Reappraisal of Mitochondrial Recombination in Plants. Genome Biology and Evolution, 2020, 12, 3586-3598.	2.5	35
53	Modelling NADH turnover in plant mitochondria. Physiologia Plantarum, 2004, 120, 370-385.	5.2	34
54	Proteomic Analysis Reveals Different Involvement of Embryo and Endosperm Proteins during Aging of Yliangyou 2 Hybrid Rice Seeds. Frontiers in Plant Science, 2016, 7, 1394.	3.6	34

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55	Biochemistry, proteomics, and phosphoproteomics of plant mitochondria from non-photosynthetic cells. Frontiers in Plant Science, 2013, 4, 51.	3.6	32
56	Proteome Analysis of Poplar Seed Vigor. PLoS ONE, 2015, 10, e0132509.	2.5	31
57	Evaluation of sample preparation methods for mass spectrometry-based proteomic analysis of barley leaves. Plant Methods, 2018, 14, 72.	4.3	31
58	Copper ion / H2O2 oxidation of Cu/Zn-Superoxide dismutase: Implications for enzymatic activity and antioxidant action. Redox Biology, 2019, 26, 101262.	9.0	31
59	Involvement of matrix NADP turnover in the oxidation of NAD+-linked substrates by pea leaf mitochondria. Physiologia Plantarum, 2001, 111, 448-456.	5.2	30
60	K+ uptake in plant roots: Experimental approach and influx models. Physiologia Plantarum, 1987, 70, 743-748.	5.2	29
61	Protein synthesis in mitochondria purified from roots, leaves and flowers of sugar beet. Physiologia Plantarum, 1991, 83, 7-16.	5.2	29
62	MU-LOC: A Machine-Learning Method for Predicting Mitochondrially Localized Proteins in Plants. Frontiers in Plant Science, 2018, 9, 634.	3.6	29
63	On the presence of inside-out plasma membrane vesicles and vanadate-inhibited K+,Mg2+-ATPase in microsomal fractions from wheat and maize roots. Physiologia Plantarum, 1989, 77, 12-19.	5.2	28
64	What is hot in plant mitochondria?. Physiologia Plantarum, 2016, 157, 256-263.	5.2	28
65	Mitochondria in parasitic plants. Mitochondrion, 2020, 52, 173-182.	3.4	28
66	Generation and purification of submitochondrial particles of different polarities from plant mitochondria. FEBS Letters, 1985, 193, 169-174.	2.8	27
67	A biotin enrichment strategy identifies novel carbonylated amino acids in proteins from human plasma. Journal of Proteomics, 2017, 156, 40-51.	2.4	25
68	Component of the alternative oxidase localized to the matrix surface of the inner membrane of plant mitochondria. FEBS Letters, 1990, 259, 311-314.	2.8	24
69	Proteomic Analysis of Lettuce Seed Germination and Thermoinhibition by Sampling of Individual Seeds at Germination and Removal of Storage Proteins by Polyethylene Glycol Fractionation. Plant Physiology, 2015, 167, 1332-1350.	4.8	23
70	Early events in copper-ion catalyzed oxidation of Î±-synuclein. Free Radical Biology and Medicine, 2018, 121, 38-50.	2.9	23
71	Insights into triterpene synthesis and unsaturated fatty-acid accumulation provided by chromosomal-level genome analysis of Akebia trifoliata subsp. australis. Horticulture Research, 2021, 8, 33.	6.3	23
72	Genetics and biology of cytoplasmic male sterility and its applications in forage and turf grass breeding. Plant Breeding, 2014, 133, 299-312.	1.9	22

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73	Electrostatic surface properties of plasmalemma vesicles from oat and wheat roots. Ion binding and screening investigated by 9-aminoacridine fluorescence. Planta, 1985, 164, 354-361.	3.2	21
74	Mitochondrial Electron Transport and Plant Stress. , 2011, , 357-381.		21
75	Identification of the site where the electron transfer chain of plant mitochondria is stimulated by electrostatic charge screening. FEBS Journal, 2000, 267, 869-876.	0.2	20
76	The surface charge density of wheat root membranes. Physiologia Plantarum, 1984, 61, 535-540.	5.2	19
77	NADH dehydrogenases in plant mitochondria. Physiologia Plantarum, 1986, 67, 517-520.	5.2	18
78	Free space uptake and influx of Ni2+ in excised barley roots. Physiologia Plantarum, 1986, 68, 583-588.	5.2	17
79	Identification of embryo proteins associated with seed germination and seedling establishment in germinating rice seeds. Journal of Plant Physiology, 2016, 196-197, 79-92.	3.5	17
80	CarbonylDB: a curated data-resource of protein carbonylation sites. Bioinformatics, 2018, 34, 2518-2520.	4.1	17
81	DNA repair in plant mitochondriaÂâ€"Âa complete base excision repair pathway in potato tuber mitochondria. Physiologia Plantarum, 2019, 166, 494-512.	5.2	16
82	Mg2+-ATPase activity in wheat root plasma membrane vesicles: Time-dependence and effect of sucrose and detergents. Physiologia Plantarum, 1987, 70, 583-589.	5.2	15
83	Î±-Synucleins from Animal Species Show Low Fibrillation Propensities and Weak Oligomer Membrane Disruption. Biochemistry, 2018, 57, 5145-5158.	2.5	15
84	Modulation of endogenous protein phosphorylation in plant mitochondria by respiratory substrates. Physiologia Plantarum, 1990, 80, 493-499.	5.2	14
85	A Suppressor Mutation Partially Reverts the xantha Trait via Lowered Methylation in the Promoter of Genomes Uncoupled 4 in Rice. Frontiers in Plant Science, 2019, 10, 1003.	3.6	14
86	Large-scale analysis of phosphorylation site occupancy in eukaryotic proteins. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 405-412.	2.3	13
87	Proteomic and Bioinformatic Profiling of Transporters in Higher Plant Mitochondria. Biomolecules, 2020, 10, 1190.	4.0	10
88	Mutations of the Genomes Uncoupled 4 Gene Cause ROS Accumulation and Repress Expression of Peroxidase Genes in Rice. Frontiers in Plant Science, 2021, 12, 682453.	3.6	9
89	Mitochondrial metabolism is regulated by thioredoxin. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3180-3181.	7.1	8
90	A model for cation content of plants based on surface potentials and surface charge densities of plant membranes. Physiologia Plantarum, 1984, 61, 529-534.	5.2	7

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91	Genes from oxidative phosphorylation complexes II-V and two dual-function subunits of complex I are transcribed in Viscum album despite absence of the entire mitochondrial holo-complex I. Mitochondrion, 2022, 62, 1-12.	3.4	7
92	Platanetin and 7-iodo-acridone-4-carboxylic acid are not specific inhibitors of respiratory NAD(P)H dehydrogenases in potato tuber mitochondria. Physiologia Plantarum, 1996, 96, 263-267.	5.2	6
93	Shortâ€term high temperature treatment reduces viability and inhibits respiration and DNA repair enzymes inAraucaria angustifoliacells. Physiologia Plantarum, 2019, 166, 513-524.	5.2	6
94	Control of the activity of plant plasma membrane MgATPase by the viscosity of the aqueous phase. Physiologia Plantarum, 1993, 89, 409-415.	5.2	5
95	Characterization and solubilization of residual redox activity in salt-washed and detergent-treated plasma membrane vesicles from spinach leaves. Protoplasma, 1998, 205, 59-65.	2.1	5
96	Changes in the mitochondrial proteome of developing maize seed embryos. Physiologia Plantarum, 2018, 163, 552-572.	5.2	5
97	Overexpression of phytoglobin in barley alters both compatible and incompatible interactions with the mildew pathogen Blumeria graminis. Plant Pathology, 2019, 68, 152-162.	2.4	5
98	A leucine motif in the amino acid sequence of subunit 9 of the mitochondrial ATPase, and other hydrophobic membrane proteins, that is highly conserved by editing. FEBS Letters, 1994, 354, 245-247.	2.8	4
99	The organization of biological membranes. Physiologia Plantarum, 1988, 73, 153-157.	5.2	3
100	Expression of starch-binding factor CBM20 in barley plastids controls the number of starch granules and the level of CO2 fixation. Journal of Experimental Botany, 2020, 71, 234-246.	4.8	3
101	A fluorescent compound in oat root plasma membrane. Physiologia Plantarum, 1985, 64, 461-467.	5.2	2
102	The effect of phytoglobin overexpression on the plant proteome during nonhost response of barley (Hordeum vulgare) to wheat powdery mildew (Blumeria graminis f. sp. tritici). Scientific Reports, 2020, 10, 9192.	3.3	2
103	Assessment of Respiratory Enzymes in Intact Cells by Permeabilization with Alamethicin. Methods in Molecular Biology, 2022, 2363, 77-84.	0.9	2
104	Measuring the Activity of DNA Repair Enzymes in Isolated. Methods in Molecular Biology, 2022, 2363, 321-334.	0.9	2
105	A novel method for assessing energization of plant mitochondria. Biochemical Society Transactions, 1983, 11, 755-756.	3.4	1
106	The subcellular distribution of carotenoids in light-grown Verticillium agaricinum. Physiologia Plantarum, 1984, 62, 167-174.	5.2	1
107	Isolation of Highly Purified, Intact, and Functional Mitochondria from Potato Tubers Using a Two-in-One Percoll Density Gradient. Methods in Molecular Biology, 2022, 2363, 39-50.	0.9	1
108	Preface. Mitochondrion, 2020, 54, 133-135.	3.4	0

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109	Integrity Assessment of Isolated Plant. Methods in Molecular Biology, 2022, 2363, 51-62.	0.9	0