Helmut Kirchhoff

List of Publications by Year
in descending order

64 papers	3,248 citations	136950 32 h-index	155660 55 g-index
69 all docs	69 docs citations	69 times ranked	2749 citing authors

#	Article	IF	Citations
1	Dynamic control of protein diffusion within the granal thylakoid lumen. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20248-20253.	7.1	206
2	Comparative quantitative proteomics to investigate the remodeling of bioenergetic pathways under iron deficiency in Chlamydomonas reinhardtii. Proteomics, 2007, 7, 3964-3979.	2.2	168
3	Control of the photosynthetic electron transport by PQ diffusion microdomains in thylakoids of higher plants. Biochimica Et Biophysica Acta - Bioenergetics, 2000, 1459, 148-168.	1.0	152
4	Architectural switch in plant photosynthetic membranes induced by light stress. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20130-20135.	7.1	146
5	Chloroplast ultrastructure in plants. New Phytologist, 2019, 223, 565-574.	7.3	137
6	Protein Diffusion and Macromolecular Crowding in Thylakoid Membranes Â. Plant Physiology, 2008, 146, 1571-1578.	4.8	122
7	Diffusion of molecules and macromolecules in thylakoid membranes. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 495-502.	1.0	117
8	The Role of Plastocyanin in the Adjustment of the Photosynthetic Electron Transport to the Carbon Metabolism in Tobacco. Plant Physiology, 2004, 136, 4265-4274.	4.8	116
9	Molecular crowding and order in photosynthetic membranes. Trends in Plant Science, 2008, 13, 201-207.	8.8	106
10	Structural changes of the thylakoid membrane network induced by high light stress in plant chloroplasts. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130225.	4.0	96
11	Exploiting mixotrophy for improving productivities of biomass and co-products of microalgae. Renewable and Sustainable Energy Reviews, 2019, 112, 450-460.	16.4	96
12	Visualising the mobility and distribution of chlorophyll-proteins in higher plant thylakoid membranes: effects of photoinhibition and protein phosphorylation. Plant Journal, 2010, 62, 948-59.	5.7	92
13	Supramolecular Photosystem II Organization in Grana Thylakoid Membranes:Â Evidence for a Structured Arrangementâ€. Biochemistry, 2004, 43, 9204-9213.	2.5	86
14	Architectural switches in plant thylakoid membranes. Photosynthesis Research, 2013, 116, 481-487.	2.9	85
15	Efficient Light Harvesting by Photosystem II Requires an Optimized Protein Packing Density in Grana Thylakoids. Journal of Biological Chemistry, 2010, 285, 17020-17028.	3.4	84
16	Low-Light-Induced Formation of Semicrystalline Photosystem II Arrays in Higher Plant Chloroplasts. Biochemistry, 2007, 46, 11169-11176.	2.5	77
17	Compartmentalization of the protein repair machinery in photosynthetic membranes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15839-15844.	7.1	74
18	Plastocyanin redox kinetics in spinach chloroplasts: evidence for disequilibrium in the high potential chain. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1659, 63-72.	1.0	72

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19	Probing the Organization of Photosystem II in Photosynthetic Membranes by Atomic Force Microscopy. Biochemistry, 2008, 47, 431-440.	2.5	71
20	Surface charge dynamics in photosynthetic membranes and the structural consequences. Nature Plants, 2017, 3, 17020.	9.3	68
21	Aggregation and fluorescence quenching of chlorophyll a of the light-harvesting complex II from spinach in vitro. Biochimica Et Biophysica Acta - Bioenergetics, 2003, 1606, 105-116.	1.0	66
22	The structural and functional domains of plant thylakoid membranes. Plant Journal, 2019, 97, 412-429.	5.7	66
23	Plastocyanin is the long-range electron carrier between photosystem II and photosystem I in plants. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15354-15362.	7.1	57
24	Photoprotection Conferred by Changes in Photosynthetic Protein Levels and Organization during Dehydration of a Homoiochlorophyllous Resurrection Plant. Plant Physiology, 2015, 167, 1554-1565.	4.8	53
25	Visualizing the mobility and distribution of chlorophyll proteins in higher plant thylakoid membranes: effects of photoinhibition and protein phosphorylation. Plant Journal, 2010, 62, 948.	5.7	52
26	Transversal and Lateral Exciton Energy Transfer in Grana Thylakoids of Spinach. Biochemistry, 2004, 43, 14508-14516.	2.5	48
27	Differential Mobility of Pigment-Protein Complexes in Granal and Agranal Thylakoid Membranes of C3 and C4 Plants Â. Plant Physiology, 2012, 161, 497-507.	4.8	47
28	Functional Implications of Photosystem II Crystal Formation in Photosynthetic Membranes. Journal of Biological Chemistry, 2015, 290, 14091-14106.	3.4	45
29	Assessment of photosynthesis regulation in mixotrophically cultured microalga Chlorella sorokiniana. Algal Research, 2016, 19, 30-38.	4.6	44
30	Significance of the Photosystem II Core Phosphatase PBCP for Plant Viability and Protein Repair in Thylakoid Membranes. Plant and Cell Physiology, 2014, 55, 1245-1254.	3.1	40
31	Impact of ion fluxes across thylakoid membranes on photosynthetic electron transport and photoprotection. Nature Plants, 2021, 7, 979-988.	9.3	39
32	Structural and functional self-organization of Photosystem II in grana thylakoids. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 1180-1188.	1.0	37
33	Protection of the photosynthetic apparatus against dehydration stress in the resurrection plant Craterostigma pumilum. Plant Journal, 2016, 87, 664-680.	5.7	37
34	Isolation, characterization, and validation of oleaginous, multi-trophic, and haloalkaline-tolerant microalgae for two-stage cultivation. Algal Research, 2014, 4, 2-11.	4.6	33
35	Structure-function relationships in photosynthetic membranes: Challenges and emerging fields. Plant Science, 2018, 266, 76-82.	3.6	30
36	Ssr2998 of Synechocystis sp. PCC 6803 Is Involved in Regulation of Cyanobacterial Electron Transport and Associated with the Cytochrome b6f Complex. Journal of Biological Chemistry, 2007, 282, 3730-3737.	3.4	29

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37	Significance of protein crowding, order and mobility for photosynthetic membrane functions. Biochemical Society Transactions, 2008, 36, 967-970.	3.4	29
38	A proteoliposome-based system reveals how lipids control photosynthetic light harvesting. Journal of Biological Chemistry, 2020, 295, 1857-1866.	3.4	29
39	A glossary of plant cell structures: Current insights and future questions. Plant Cell, 2022, 34, 10-52.	6.6	27
40	Sublocalization of Cytochrome b6f Complexes in Photosynthetic Membranes. Trends in Plant Science, 2017, 22, 574-582.	8.8	26
41	Measuring the dynamic response of the thylakoid architecture in plant leaves by electron microscopy. Plant Direct, 2020, 4, e00280.	1.9	26
42	Chloroplast breakdown during dehydration of a homoiochlorophyllous resurrection plant proceeds via senescence-like processes. Environmental and Experimental Botany, 2019, 157, 100-111.	4.2	24
43	Significance of molecular crowding in grana membranes of higher plants for light harvesting by photosystem II. Photosynthesis Research, 2008, 95, 129-134.	2.9	23
44	Structural constraints for protein repair in plant photosynthetic membranes. Plant Signaling and Behavior, 2013, 8, e23634.	2.4	21
45	Regulation and stimulation of photosynthesis of mixotrophically cultured Haematococcus pluvialis by ribose. Algal Research, 2019, 39, 101443.	4.6	21
46	Functional photosystem I maintains proper energy balance during nitrogen depletion in Chlamydomonas reinhardtii, promoting triacylglycerol accumulation. Biotechnology for Biofuels, 2017, 10, 89.	6.2	19
47	Reduced Arogenate Dehydratase Expression: Ramifications for Photosynthesis and Metabolism. Plant Physiology, 2018, 177, 115-131.	4.8	18
48	A phosphorylation map of the photosystem II supercomplex C2S2M2. Frontiers in Plant Science, 2013, 4, 459.	3.6	14
49	Fluctuating light experiments and semi-automated plant phenotyping enabled by self-built growth racks and simple upgrades to the IMAGING-PAM. Plant Methods, 2019, 15, 156.	4.3	13
50	Metabolic control of photosynthetic electron transport in crassulacean acid metabolism-induced Mesembryanthemum crystallinum. Functional Plant Biology, 2002, 29, 697.	2.1	12
51	Using Fluorescence Recovery After Photobleaching to Measure Lipid Diffusion in Membranes. Methods in Molecular Biology, 2007, 400, 267-275.	0.9	11
52	Role of Lipids in the Dynamics of Thylakoid Membranes. Advances in Photosynthesis and Respiration, 2009, , 283-294.	1.0	9
53	Carotenoidâ€“Chlorophyll Coupling and Fluorescence Quenching Correlate with Protein Packing Density in Grana-Thylakoids. Journal of Physical Chemistry B, 2013, 117, 11022-11030.	2.6	9
54	PsbSâ€dependent and â€independent mechanisms regulate carotenoidâ€chlorophyll energy coupling in grana thylakoids. FEBS Letters, 2019, 593, 3190-3197.	2.8	4

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55	Drought Tolerance Strategies and Autophagy in Resilient Wheat Genotypes. Cells, 2022, 11, 1765.	4.1	4
56	Evaluation of Lipids for the Study of Photosynthetic Membranes. Methods in Molecular Biology, 2018, 1770, 305-316.	0.9	3
57	The Rice Plastidial Phosphorylase Participates Directly in Both Sink and Source Processes. Plant and Cell Physiology, 2021, 62, 125-142.	3.1	2
58	Reply to: Is the debate over grana stacking formation finally solved?. Nature Plants, 2021, 7, 279-281.	9.3	2
59	Differential response of the photosynthetic machinery to dehydration in older and younger resurrection plants. Journal of Experimental Botany, 2022, 73, 1566-1580.	4.8	2
60	Proteoliposomes for Studying Lipid-protein Interactions in Membranes in vitro. Bio-protocol, 2021, 11, e4197.	0.4	1
61	Biorefinery Processing of Waste to Supply Cost-Effective and Sustainable Inputs for Two-Stage Microalgal Cultivation. Applied Sciences (Switzerland), 2022, 12, 1485.	2.5	1
62	Quinone Diffusion in Photosynthetic Membranes: Challenges Caused by Complex Membrane Architectures. Biophysical Journal, 2019, 116, 2a.	0.5	0
63	Investigating The Organization Of Photosystem Ii In Spinach Photosynthetic Membranes By Atomic Force Microscopy. , 2008, , 779-782.		0
64	Thylakoid Membrane Dynamics in Higher Plants. , 2017, , 221-242.		0