Josef Komenda

List of Publications by Year
in descending order

103 papers	5,208 citations	76326 40 h-index	95266 68 g-index
106 all docs	106 docs citations	106 times ranked	3471 citing authors

#	Article	IF	Citations
1	Recent advances in understanding the assembly and repair of photosystem II. Annals of Botany, 2010, 106, 1-16.	2.9	480
2	Assembling and maintaining the Photosystem II complex in chloroplasts and cyanobacteria. Current Opinion in Plant Biology, 2012, 15, 245-251.	7.1	248
3	FtsH-mediated repair of the photosystem II complex in response to light stress. Journal of Experimental Botany, 2004, 56, 357-363.	4.8	175
4	Mechanism of photoprotection in the cyanobacterial ancestor of plant antenna proteins. Nature Chemical Biology, 2015, 11, 287-291.	8.0	173
5	Accumulation of the D2 Protein Is a Key Regulatory Step for Assembly of the Photosystem II Reaction Center Complex in Synechocystis PCC 6803. Journal of Biological Chemistry, 2004, 279, 48620-48629.	3.4	152
6	The FtsH Protease slr0228 Is Important for Quality Control of Photosystem II in the Thylakoid Membrane of Synechocystis sp. PCC 6803. Journal of Biological Chemistry, 2006, 281, 1145-1151.	3.4	133
7	The Cyanobacterial Homologue of HCF136/YCF48 Is a Component of an Early Photosystem II Assembly Complex and Is Important for Both the Efficient Assembly and Repair of Photosystem II in Synechocystis sp. PCC 6803. Journal of Biological Chemistry, 2008, 283, 22390-22399.	3.4	131
8	Comparison of psbO and psbH deletion mutants of Synechocystis PCC 6803 indicates that degradation of D1 protein is regulated by the QB site and dependent on protein synthesis. Biochemistry, 1995, 34, 9625-9631.	2.5	130
9	Psb28 Protein Is Involved in the Biogenesis of the Photosystem II Inner Antenna CP47 (PsbB) in the Cyanobacterium Synechocystis sp. PCC 6803 Â Â. Plant Physiology, 2009, 149, 1076-1086.	4.8	130
10	A Cyanobacterial Chlorophyll Synthase-HliD Complex Associates with the Ycf39 Protein and the YidC/Alb3 Insertase Â. Plant Cell, 2014, 26, 1267-1279.	6.6	125
11	Discovery of a Chlorophyll Binding Protein Complex Involved in the Early Steps of Photosystem II Assembly in Synechocystis Â. Plant Cell, 2014, 26, 1200-1212.	6.6	114
12	Strategies of ultraviolet-B protection in microscopic algae. Physiologia Plantarum, 1997, 100, 378-388.	5.2	107
13	A biosensor for the detection of triazine and phenylurea herbicides designed using Photosystem II coupled to a screen-printed electrode. Biotechnology and Bioengineering, 2002, 78, 110-116.	3.3	105
14	The Psb27 Assembly Factor Binds to the CP43 Complex of Photosystem II in the Cyanobacterium Synechocystis sp. PCC 6803 Â Â Â. Plant Physiology, 2012, 158, 476-486.	4.8	105
15	Cyanobacterial high-light-inducible proteins â€" Protectors of chlorophyllâ€"protein synthesis and assembly. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 288-295.	1.0	98
16	Localization of the Small CAB-like Proteins in Photosystem II. Journal of Biological Chemistry, 2007, 282, 267-276.	3.4	86
17	Investigating the Early Stages of Photosystem II Assembly in Synechocystis sp. PCC 6803. Journal of Biological Chemistry, 2011, 286, 14812-14819.	3.4	85
18	Oxidative Modifications of the Photosystem II D1 Protein by Reactive Oxygen Species: From Isolated Protein to Cyanobacterial CellsÂ¶. Photochemistry and Photobiology, 2004, 79, 152.	2.5	84

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19	Photoadaptation of two members of the Chlorophyta (Scenedesmus and Chlorella) in laboratory and outdoor cultures: changes in chlorophyll fluorescence quenching and the xanthophyll cycle. Planta, 1999, 209, 126-135.	3.2	83
20	Long-Term Acclimation of the Cyanobacterium Synechocystis sp. PCC 6803 to High Light Is Accompanied by an Enhanced Production of Chlorophyll That Is Preferentially Channeled to Trimeric Photosystem I. Plant Physiology, 2012, 160, 2239-2250.	4.8	78
21	A sensitive photosystem II-based biosensor for detection of a class of herbicides. Biotechnology and Bioengineering, 1998, 60, 664-669.	3.3	77
22	The Exposed N-Terminal Tail of the D1 Subunit Is Required for Rapid D1 Degradation during Photosystem II Repair in Synechocystis sp PCC 6803. Plant Cell, 2007, 19, 2839-2854.	6.6	77
23	Importance of the Cyanobacterial Gun4 Protein for Chlorophyll Metabolism and Assembly of Photosynthetic Complexes. Journal of Biological Chemistry, 2008, 283, 25794-25802.	3.4	77
24	Role of the PsbI Protein in Photosystem II Assembly and Repair in the Cyanobacterium Synechocystis sp. PCC 6803. Plant Physiology, 2007, 145, 1681-1691.	4.8	73
25	Deletion of the PEST-like Region of Photosystem Two Modifies the QB-binding Pocket but Does Not Prevent Rapid Turnover of D1. Journal of Biological Chemistry, 1995, 270, 14919-14927.	3.4	72
26	Absence of the psbH gene product destabilizes photosystem II complex and bicarbonate binding on its acceptor side in Synechocystis PCC 6803. FEBS Journal, 2002, 269, 610-619.	0.2	71
27	Cyanobacterial Small Chlorophyll-binding Protein ScpD (HliB) Is Located on the Periphery of Photosystem II in the Vicinity of PsbH and CP47 Subunits. Journal of Biological Chemistry, 2006, 281, 32705-32713.	3.4	68
28	Involvement of Carotenoids in the Synthesis and Assembly of Protein Subunits of Photosynthetic Reaction Centers of Synechocystis sp. PCC 6803. Plant and Cell Physiology, 2010, 51, 823-835.	3.1	66
29	The Deg Proteases Protect Synechocystis sp. PCC 6803 during Heat and Light Stresses but Are Not Essential for Removal of Damaged D1 Protein during the Photosystem Two Repair Cycle. Journal of Biological Chemistry, 2006, 281, 30347-30355.	3.4	60
30	Split Photosystem Protein, Linear-Mapping Topology, and Growth of Structural Complexity in the Plastid Genome of Chromera velia. Molecular Biology and Evolution, 2013, 30, 2447-2462.	8.9	59
31	Subunit Organization of a Synechocystis Hetero-Oligomeric Thylakoid FtsH Complex Involved in Photosystem II Repair Â Â. Plant Cell, 2012, 24, 3669-3683.	6.6	56
32	Carotenoid-induced non-photochemical quenching in the cyanobacterial chlorophyll synthaseâ€“HliC/D complex. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1430-1439.	1.0	54
33	Synechocystis 6803 mutants expressing distinct forms of the Photosystem II D1 protein from Synechococcus 7942: relationship between the psbA coding region and sensitivity to visible and UV-B radiation. Biochimica Et Biophysica Acta - Bioenergetics, 2003, 1605, 55-66.	1.0	53
34	Carotenoids are essential for the assembly of cyanobacterial photosynthetic complexes. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1153-1165.	1.0	52
35	Association of Psb28 and Psb27 Proteins with PSII-PSI Supercomplexes upon Exposure of Synechocystis sp. PCC 6803 to High Light. Molecular Plant, 2017, 10, 62-72.	8.3	51
36	Degradation of the Photosystem II D1 and D2 proteins in different strains of the cyanobacterium Synechocytis PCC 6803 varying with respect to the type and level of psbA transcript. Plant Molecular Biology, 2000, 42, 635-645.	3.9	48

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37	Three types of Photosystem II photoinactivation. Photosynthesis Research, 1990, 24, 89-97.	2.9	47
38	Heat-induced disassembly and degradation of chlorophyll-containing protein complexes in vivo. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 63-70.	1.0	47
39	The PsbH protein is associated with the inner antenna CP47 and facilitates D1 processing and incorporation into PSII in the cyanobacterium Synechocystis PCC 6803. Plant and Cell Physiology, 2005, 46, 1477-1483.	3.1	45
40	Small CABâ€like proteins prevent formation of singlet oxygen in the damaged photosystem II complex of the cyanobacterium Synechocystis sp. PCC 6803. Plant, Cell and Environment, 2012, 35, 806-818.	5.7	45
41	Cleavage after residue Ala352 in the C-terminal extension is an early step in the maturation of the D1 subunit of Photosystem II in Synechocystis PCC 6803. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 829-837.	1.0	43
42	Role of FtsH2 in the repair of Photosystem II in mutants of the cyanobacterium Synechocystis PCC 6803 with impaired assembly or stability of the CaMn4 cluster. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 566-575.	1.0	43
43	Structural and Mutational Analysis of Band 7 Proteins in the Cyanobacterium Synechocystis sp. Strain PCC 6803. Journal of Bacteriology, 2009, 191, 6425-6435.	2.2	42
44	Two essential <scp>FtsH</scp> proteases control the level of the <scp>Fur</scp> repressor during iron deficiency in the cyanobacterium <scp>S</scp>ynechocystis sp. <scp>PCC</scp> 6803. Molecular Microbiology, 2014, 94, 609-624.	2.5	42
45	Functional and Structural Changes of the Photosystem II Complex Induced by High Irradiance in Cyanobacterial Cells. FEBS Journal, 1995, 233, 677-682.	0.2	41
46	Accessibility controls selective degradation of photosystem II subunits by FtsH protease. Nature Plants, 2015, 1, 15168.	9.3	39
47	Role of phosphatidylglycerol in the function and assembly of Photosystem II reaction center, studied in a cdsA-inactivated PAL mutant strain of Synechocystis sp. PCC6803 that lacks phycobilisomes. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 1184-1194.	1.0	38
48	Accumulation of the Type <scp>IV</scp> prepilin triggers degradation of <scp>SecY</scp> and <scp>YidC</scp> and inhibits synthesis of Photosystem <scp>II</scp> proteins in the cyanobacterium <scp>S</scp>ynechocystisâ€…<scp>PCC</scp> 6803. Molecular Microbiology, 2014, 93, 1207-1223.	2.5	38
49	Strain of Synechocystis PCC 6803 with Aberrant Assembly of Photosystem II Contains Tandem Duplication of a Large Chromosomal Region. Frontiers in Plant Science, 2016, 7, 648.	3.6	38
50	Interaction of the PsbH subunit with a chlorophyll bound to histidine 114 of CP47 is responsible for the red 77K fluorescence of Photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1327-1334.	1.0	32
51	Lack of Phosphatidylglycerol Inhibits Chlorophyll Biosynthesis at Multiple Sites and Limits Chlorophyllide Reutilization in Synechocystis sp. Strain PCC 6803. Plant Physiology, 2015, 169, 1307-1317.	4.8	32
52	A Photosynthesis-Specific Rubredoxin-Like Protein Is Required for Efficient Association of the D1 and D2 Proteins during the Initial Steps of Photosystem II Assembly. Plant Cell, 2019, 31, 2241-2258.	6.6	30
53	CELL AGGREGATION OF THE CYANOBACTERIUM SYNECHOCOCCUS ELONGATUS : ROLE OF THE ELECTRON TRANSPORT CHAIN. Journal of Phycology, 2000, 36, 662-668.	2.3	29
54	Lipid and carotenoid cooperation-driven adaptation to light and temperature stress in Synechocystis sp. PCC6803. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 337-350.	1.0	29

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55	Ycf48 involved in the biogenesis of the oxygen-evolving photosystem II complex is a seven-bladed beta-propeller protein. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7824-E7833.	7.1	29
56	Chlorophyll f synthesis by a super-rogue photosystem II complex. Nature Plants, 2020, 6, 238-244.	9.3	28
57	Inhibition of chlorophyll biosynthesis at the protochlorophyllide reduction step results in the parallel depletion of Photosystem I and Photosystem II in the cyanobacterium Synechocystis PCC 6803. Planta, 2013, 237, 497-508.	3.2	27
58	Structure of Psb29/Thf1 and its association with the FtsH protease complex involved in photosystem II repair in cyanobacteria. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160394.	4.0	27
59	Role of two forms of the D1 protein in the recovery from photoinhibition of photosystem II in the cyanobacterium Synechococcus PCC 7942. Biochimica Et Biophysica Acta - Bioenergetics, 2000, 1457, 243-252.	1.0	26
60	Crystal structure of the Psb27 assembly factor at 1.6ÂÃ…: implications for binding to Photosystem II. Photosynthesis Research, 2012, 110, 169-175.	2.9	26
61	CyanoP is Involved in the Early Steps of Photosystem II Assembly in the CyanobacteriumSynechocystissp. PCC 6803. Plant and Cell Physiology, 2016, 57, 1921-1931.	3.1	26
62	Diel regulation of photosynthetic activity in the oceanic unicellular diazotrophic cyanobacterium Crocosphaera watsonii WH8501. Environmental Microbiology, 2018, 20, 546-560.	3.8	25
63	Involvement of protein phosphorylation in the sensitivity of photosystem II to strong illumination. Physiologia Plantarum, 1994, 92, 181-187.	5.2	24
64	Photosystem II Assembly in CP47 Mutant of Synechocystis sp. PCC 6803 Is Dependent on the Level of Chlorophyll Precursors Regulated by Ferrochelatase. Journal of Biological Chemistry, 2005, 280, 31595-31602.	3.4	24
65	Characterization of a Synechocystis double mutant lacking the photosystem II assembly factors YCF48 and Sll0933. Planta, 2013, 237, 471-480.	3.2	24
66	Photosystem II Assembly Steps Take Place in the Thylakoid Membrane of the CyanobacteriumSynechocystissp. PCC6803. Plant and Cell Physiology, 2016, 57, 95-104.	3.1	24
67	Title is missing!. Photosynthesis Research, 1998, 57, 193-202.	2.9	23
68	Histidine residue 252 of the Photosystem II D1 polypeptide is involved in a light-induced cross-linking of the polypeptide with the Î± subunit of cytochrome b-559: study of a site-directed mutant of Synechocystis PCC 6803. Biochimica Et Biophysica Acta - Bioenergetics, 2002, 1554, 192-201.	1.0	23
69	Phosphatidylglycerol depletion affects photosystem II activity in Synechococcus sp. PCC 7942 cells. Photosynthesis Research, 2010, 103, 19-30.	2.9	22
70	Redesigning the photosynthetic light reactions to enhance photosynthesis â€“ the PhotoRedesign consortium. Plant Journal, 2022, 109, 23-34.	5.7	21
71	The ribosome-bound protein Pam68 promotes insertion of chlorophyll into the CP47 subunit of Photosystem II. Plant Physiology, 2018, 176, pp.00061.2018.	4.8	20
72	A role of the C-terminal extension of the photosystem II D1 protein in sensitivity of the cyanobacterium Synechocystis PCC 6803 to photoinhibition. Photochemical and Photobiological Sciences, 2005, 4, 1044.	2.9	19

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73	Localization of the PsbH subunit in photosystem II from the Synechocystis 6803 using the His-tagged Niâ€“NTA Nanogold labeling. Journal of Structural Biology, 2005, 152, 28-35.	2.8	19
74	Immobilized metal affinity chromatography for the separation of photosystems I and II from the thermophilic cyanobacterium Synechococcus elongatus. Journal of Chromatography A, 1992, 625, 21-31.	3.7	16
75	Assembly of D1/D2 complexes of photosystem II: Binding of pigments and a network of auxiliary proteins. Plant Physiology, 2022, 189, 790-804.	4.8	16
76	Purification of a Photosystem II reaction center from a thermophilic cyanobacterium using immobilized metal affinity chromatography. Photosynthesis Research, 1995, 43, 201-211.	2.9	15
77	Localization of Pcb antenna complexes in the photosynthetic prokaryote Prochlorothrix hollandica. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 89-97.	1.0	15
78	Characterization of processes responsible for the distinct effect of herbicides DCMU and BNT on Photosystem II photoinactivation in cells of the cyanobacterium Synechococcus sp. PCC 7942. Photosynthesis Research, 2000, 63, 135-144.	2.9	13
79	Chlorophyll-binding subunits of photosystem I and II: Biosynthesis, chlorophyll incorporation and assembly. Advances in Botanical Research, 2019, 91, 195-223.	1.1	13
80	The cry-DASH cryptochrome encoded by the sll1629 gene in the cyanobacterium Synechocystis PCC 6803 is required for Photosystem II repair. Journal of Photochemistry and Photobiology B: Biology, 2014, 130, 318-326.	3.8	12
81	Depletion of the FtsH1/3 Proteolytic Complex Suppresses the Nutrient Stress Response in the Cyanobacterium Synechocystis sp strain PCC 6803. Plant Cell, 2019, 31, 2912-2928.	6.6	12
82	Autotrophic cells of the Synechocystis psbH deletion mutant are deficient in synthesis of CP47 and accumulate inactive PS II core complexes. Photosynthesis Research, 2005, 85, 161-167.	2.9	10
83	Crystal structure of the Psb28 accessory factor of Thermosynechococcus elongatus photosystem II at 2.3Âå„«. Photosynthesis Research, 2013, 117, 375-383.	2.9	10
84	Oxidative Modifications of the Photosystem II D1 Protein by Reactive Oxygen Species: From Isolated Protein to Cyanobacterial Cells^{Â¶}. Photochemistry and Photobiology, 2004, 79, 152-162.	2.5	9
85	Psb35 Protein Stabilizes the CP47 Assembly Module and Associated High-Light Inducible Proteins during the Biogenesis of Photosystem II in the CyanobacteriumSynechocystissp. PCC6803. Plant and Cell Physiology, 2021, 62, 178-190.	3.1	8
86	The Photosystem II Assembly Factor Ycf48 from the Cyanobacterium Synechocystis sp. PCC 6803 Is Lipidated Using an Atypical Lipobox Sequence. International Journal of Molecular Sciences, 2021, 22, 3733.	4.1	8
87	Isolation of Thylakoid Membranes from the Cyanobacterium Synechocystis sp. PCC 6803 and Analysis of Their Photosynthetic Pigment-protein Complexes by Clear Native-PAGE. Bio-protocol, 2019, 9, e3126.	0.4	8
88	Sequential deletions of photosystem II assembly factors Ycf48, Ycf39 and Pam68 result in progressive loss of autotrophy in the cyanobacterium Synechocystis PCC 6803. Folia Microbiologica, 2019, 64, 683-689.	2.3	7
89	Photosystem II antenna modules CP43 and CP47 do not form a stable â€˜no reaction centre complexâ€™ in the cyanobacterium Synechocystis sp. PCC 6803. Photosynthesis Research, 2022, 152, 363-371.	2.9	7
90	Psb34 protein modulates binding of high-light-inducible proteins to CP47-containing photosystem II assembly intermediates in the cyanobacterium Synechocystis sp. PCC 6803. Photosynthesis Research, 2022, 152, 333-346.	2.9	7

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91	Phosphatidylglycerol is implicated in divisome formation and metabolic processes of cyanobacteria. Journal of Plant Physiology, 2018, 223, 96-104.	3.5	6
92	Identification of thylakoid membrane thermal transitions in Synechocystis sp. PCC6803 photosynthetic mutants. Photosynthesis Research, 2011, 107, 237-246.	2.9	5
93	Fast Diffusion of the Unassembled PetC1-GFP Protein in the Cyanobacterial Thylakoid Membrane. Life, 2021, 11, 15.	2.4	5
94	Keeping the Green World Alive. , 2011, , 3-22.		3
95	Structure of the Cyanobacterial Photosystem II: An Indication of Different Functions of CP47 and CP43. , 1992, , 411-415.		2
96	Tandem gene amplification restores photosystem II accumulation in cytochrome b₅₅₉ mutants of cyanobacteria. New Phytologist, 2022, 233, 766-780.	7.3	2
97	Light adaptation in the cyanobacterium Synechococcus sp. PCC 7942 measured by the dual-modulation fluorometer. Journal of Luminescence, 1997, 72-74, 589-590.	3.1	1
98	Biogenesis and Structural Dynamics of the Photosystem II Complex. , 2006, , 32-45.		1
99	Mutations Suppressing the Lack of Prepilin Peptidase Provide Insights Into the Maturation of the Major Pilin Protein in Cyanobacteria. Frontiers in Microbiology, 2021, 12, 756912.	3.5	1
100	Involvement of protein phosphorylation in the sensitivity of photosystem II to strong illumination. Physiologia Plantarum, 1994, 92, 181-187.	5.2	1
101	Hole-Burning Study of Energy Transfer in Antenna Proteins of Dunaliella Tertiolecta Affected by Iron-Limitation. Molecular Crystals and Liquid Crystals, 1996, 291, 111-117.	0.3	0
102	Prof. RNDr. DanuÅ¡e SofrovÃ¡, CSc.. Photosynthetica, 2016, 54, 481-483.	1.7	0
103	A Distinct Effect of the Phenolic Herbicide Bnt on the Photosystem II Photoinactivation in Two Cyanobacterial Strains Synechococcus PCC 7942 and Synechocystis PCC 6803. , 1998, , 2209-2212.		0