

John H Golbeck

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

189
papers

6,824
citations

46
h-index

72
g-index

195
ext. papers

7,411
ext. citations

4.7
avg, IF

5.6
L-index

#	Paper	IF	Citations
189	EPR of Type I photosynthetic reaction centers.. <i>Methods in Enzymology</i> , 2022 , 666, 413-450	1.7	
188	Acclimation of the photosynthetic apparatus to low light in a thermophilic <i>Synechococcus</i> sp. strain.. <i>Photosynthesis Research</i> , 2022 , 1	3.7	1
187	Structure of a monomeric photosystem II core complex from a cyanobacterium acclimated to far-red light reveals the functions of chlorophylls d and f. <i>Journal of Biological Chemistry</i> , 2021 , 101424	5.4	6
186	Primary charge separation within the structurally symmetric tetrameric ChlPPChl chlorophyll exciplex in photosystem I. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2021 , 217, 112154	6.7	8
185	Differential sensitivity to oxygen among the bacteriochlorophylls g in the type-I reaction centers of <i>Heliobacterium modesticaldum</i> . <i>Photochemical and Photobiological Sciences</i> , 2021 , 20, 747-759	4.2	1
184	Conserved residue PsaB-Trp673 is essential for high-efficiency electron transfer between the phylloquinones and the iron-sulfur clusters in Photosystem I. <i>Photosynthesis Research</i> , 2021 , 148, 161-180	3.7	0
183	A dimeric chlorophyll electron acceptor differentiates type I from type II photosynthetic reaction centers. <i>IScience</i> , 2021 , 24, 102719	6.1	4
182	Two-dimensional HYSCORE spectroscopy reveals a histidine imidazole as the axial ligand to Chl in the M688H genetic variant of Photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2021 , 1862, 148424	4.6	4
181	Liposome-based measurement of light-driven chloride transport kinetics of halorhodopsin. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2021 , 1863, 183637	3.8	0
180	Symmetry breaking in photosystem I: ultrafast optical studies of variants near the accessory chlorophylls in the A- and B-branches of electron transfer cofactors. <i>Photochemical and Photobiological Sciences</i> , 2021 , 20, 1209-1227	4.2	0
179	Shedding Light on Primary Donors in Photosynthetic Reaction Centers. <i>Frontiers in Microbiology</i> , 2021 , 12, 735666	5.7	4
178	Two-dimensional Zn HYSCORE spectroscopy reveals that a Zn-bacteriochlorophyll a dimer is the primary donor (P) in the type-1 reaction centers of <i>Chloracidobacterium thermophilum</i> . <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 6457-6467	3.6	9
177	The structure of Photosystem I acclimated to far-red light illuminates an ecologically important acclimation process in photosynthesis. <i>Science Advances</i> , 2020 , 6, eaay6415	14.3	24
176	Evidence that chlorophyll f functions solely as an antenna pigment in far-red-light photosystem I from <i>Fischerella thermalis</i> PCC 7521. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2020 , 1861, 148184	4.6	12
175	Generating dihydrogen by tethering an [FeFe]hydrogenase via a molecular wire to the A/A sites of photosystem I. <i>Photosynthesis Research</i> , 2020 , 143, 155-163	3.7	5
174	Control of electron transfer by protein dynamics in photosynthetic reaction centers. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2020 , 55, 425-468	8.7	3
173	Designing a modified clostridial 2[4Fe-4S] ferredoxin as a redox coupler to directly link photosystem I with a Pt nanoparticle. <i>Photosynthesis Research</i> , 2020 , 143, 165-181	3.7	3

172	Characterization of chlorophyll f synthase heterologously produced in <i>Synechococcus</i> sp. PCC 7002. <i>Photosynthesis Research</i> , 2019 , 140, 77-92	3.7	32
171	Energy transfer from chlorophyll f to the trapping center in naturally occurring and engineered Photosystem I complexes. <i>Photosynthesis Research</i> , 2019 , 141, 151-163	3.7	26
170	Reaction centers of the thermophilic microaerophile, <i>Chloracidobacterium thermophilum</i> (Acidobacteria) I: biochemical and biophysical characterization. <i>Photosynthesis Research</i> , 2019 , 142, 87-103	3.7	8
169	Multiple pathways of charge recombination revealed by the temperature dependence of electron transfer kinetics in cyanobacterial photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019 , 1860, 601-610	4.6	8
168	Structure and function of an unusual flavodoxin from the domain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 25917-25922	11.5	6
167	Engineered biosynthesis of bacteriochlorophyll g in <i>Rhodobacter sphaeroides</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018 , 1859, 501-509	4.6	14
166	Toward a mechanistic and physiological understanding of a ferredoxin:disulfide reductase from the domains Archaea and Bacteria. <i>Journal of Biological Chemistry</i> , 2018 , 293, 9198-9209	5.4	6
165	N photo-CIDNP MAS NMR analysis of reaction centers of <i>Chloracidobacterium thermophilum</i> . <i>Photosynthesis Research</i> , 2018 , 137, 295-305	3.7	14
164	Mutations in algal and cyanobacterial Photosystem I that independently affect the yield of initial charge separation in the two electron transfer cofactor branches. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018 , 1859, 42-55	4.6	8
163	Presence of a [3Fe-4S] cluster in a PsaC variant as a functional component of the photosystem I electron transfer chain in <i>Synechococcus</i> sp. PCC 7002. <i>Photosynthesis Research</i> , 2018 , 136, 31-48	3.7	2
162	Expression, purification and characterization of an active C491G variant of ferredoxin sulfite reductase from <i>Synechococcus elongatus</i> PCC 7942. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018 , 1859, 1096-1107	4.6	1
161	Electron-Phonon Coupling in Cyanobacterial Photosystem I. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 7943-7955	3.4	12
160	Light-Driven Chloride Transport Kinetics of Halorhodopsin. <i>Biophysical Journal</i> , 2018 , 115, 353-360	2.9	4
159	Ultrafast Energy Transfer Involving the Red Chlorophylls of Cyanobacterial Photosystem I Probed through Two-Dimensional Electronic Spectroscopy. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11631-11638	16.4	25
158	Improving extraction and post-purification concentration of membrane proteins. <i>Analyst, The</i> , 2018 , 143, 1378-1386	5	12
157	Critical evaluation of electron transfer kinetics in P-F/F, P-F, and P-A Photosystem I core complexes in liquid and in trehalose glass. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018 , 1859, 1288-1301	4.6	25
156	PoreDesigner for tuning solute selectivity in a robust and highly permeable outer membrane pore. <i>Nature Communications</i> , 2018 , 9, 3661	17.4	36
155	BciD Is a Radical S-Adenosyl-L-methionine (SAM) Enzyme That Completes Bacteriochlorophyllide e Biosynthesis by Oxidizing a Methyl Group into a Formyl Group at C-7. <i>Journal of Biological Chemistry</i> , 2017 , 292, 1361-1373	5.4	20

154	Structure of a symmetric photosynthetic reaction center-photosystem. <i>Science</i> , 2017 , 357, 1021-1025	33.3	81
153	Effect of Dehydrated Trehalose Matrix on the Kinetics of Forward Electron Transfer Reactions in Photosystem I. <i>Zeitschrift Fur Physikalische Chemie</i> , 2017 , 231, 325-345	3.1	8
152	Zn ²⁺ -Inducible Expression Platform for <i>Synechococcus</i> sp. Strain PCC 7002 Based on the <i>smtA</i> Promoter/Operator and <i>smtB</i> Repressor. <i>Applied and Environmental Microbiology</i> , 2017 , 83,	4.8	10
151	Triplet Charge Recombination in Heliobacterial Reaction Centers Does Not Produce a Spin-Polarized EPR Spectrum. <i>Zeitschrift Fur Physikalische Chemie</i> , 2017 , 231, 593-607	3.1	5
150	Quantum yield measurements of light-induced H ₂ generation in a photosystem I-[FeFe]-H ₂ nanoconstruct. <i>Photosynthesis Research</i> , 2016 , 127, 5-11	3.7	7
149	Biomimetic wiring and stabilization of photosynthetic membrane proteins with block copolymer interfaces. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 15457-15463	13	21
148	Regulation of Gene Expression in <i>Shewanella oneidensis</i> MR-1 during Electron Acceptor Limitation and Bacterial Nanowire Formation. <i>Applied and Environmental Microbiology</i> , 2016 , 82, 5428-43	4.8	32
147	Elucidating the design principles of photosynthetic electron-transfer proteins by site-directed spin labeling EPR spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016 , 1857, 548-556	4.6	0
146	Concentrating membrane proteins using ultrafiltration without concentrating detergents. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 2122-30	4.9	7
145	Thermodynamics of the Electron Acceptors in <i>Heliobacterium modesticaldum</i> : An Exemplar of an Early Homodimeric Type I Photosynthetic Reaction Center. <i>Biochemistry</i> , 2016 , 55, 2358-70	3.2	23
144	The Effect of Bacteriochlorophyll <i>g</i> Oxidation on Energy and Electron Transfer in Reaction Centers from <i>Heliobacterium modesticaldum</i> . <i>Journal of Physical Chemistry B</i> , 2015 , 119, 13714-25	3.4	13
143	Bacterial Nanowires of <i>Shewanella Oneidensis</i> MR-1 are Outer Membrane and Periplasmic Extensions of the Extracellular Electron Transport Components. <i>Biophysical Journal</i> , 2015 , 108, 368a	2.9	5
142	Electron transfer from the A1A and A1B sites to a tethered Pt nanoparticle requires the FeS clusters for suppression of the recombination channel. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2015 , 152, 325-34	6.7	4
141	The Presence of the IsiA-PSI Supercomplex Leads to Enhanced Photosystem I Electron Throughput in Iron-Starved Cells of <i>Synechococcus</i> sp. PCC 7002. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 13549-59	3.4	16
140	Species-dependent alteration of electron transfer in the early stages of charge stabilization in Photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2015 , 1847, 429-440	4.6	9
139	Light-mediated hydrogen generation in Photosystem I: attachment of a naphthoquinone-molecular wire-Pt nanoparticle to the A1A and A1B sites. <i>Biochemistry</i> , 2014 , 53, 2295-306	3.2	20
138	Two-dimensional protein crystals for solar energy conversion. <i>Advanced Materials</i> , 2014 , 26, 7064-9	24	31
137	<i>Shewanella oneidensis</i> MR-1 nanowires are outer membrane and periplasmic extensions of the extracellular electron transport components. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 12883-8	11.5	412

136	Molecular dynamics study of the primary charge separation reactions in Photosystem I: effect of the replacement of the axial ligands to the electron acceptor A ₀ . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014 , 1837, 1472-83	4.6	14
135	Vipp1 is essential for the biogenesis of Photosystem I but not thylakoid membranes in <i>Synechococcus</i> sp. PCC 7002. <i>Journal of Biological Chemistry</i> , 2014 , 289, 15904-14	5.4	41
134	ChlR protein of <i>Synechococcus</i> sp. PCC 7002 is a transcription activator that uses an oxygen-sensitive [4Fe-4S] cluster to control genes involved in pigment biosynthesis. <i>Journal of Biological Chemistry</i> , 2014 , 289, 16624-39	5.4	18
133	Evidence that histidine forms a coordination bond to the A(0A) and A(0B) chlorophylls and a second H-bond to the A(1A) and A(1B) phylloquinones in M688H(PsaA) and M688H(PsaB) variants of <i>Synechocystis</i> sp. PCC 6803. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014 , 1837, 1362-75	4.6	27
132	Temporal and spectral characterization of the photosynthetic reaction center from <i>Heliobacterium modesticaldum</i> . <i>Photosynthesis Research</i> , 2013 , 116, 1-9	3.7	23
131	The field-dependence of the solid-state photo-CIDNP effect in two states of heliobacterial reaction centers. <i>Photosynthesis Research</i> , 2013 , 117, 461-9	3.7	4
130	Metals in bioenergetics and biomimetics systems. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013 , 1827, 869-70	4.6	2
129	The structure and function of quinones in biological solar energy transduction: a cyclic voltammetry, EPR, and hyperfine sub-level correlation (HYSCORE) spectroscopy study of model naphthoquinones. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 7210-20	3.4	17
128	Spectral resolution of the primary electron acceptor A ₀ in Photosystem I. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 3380-6	3.4	18
127	Isolation and characterization of homodimeric type-I reaction center complex from <i>Candidatus Chloracidobacterium thermophilum</i> , an aerobic chlorophototroph. <i>Journal of Biological Chemistry</i> , 2012 , 287, 5720-32	5.4	34
126	Incorporation of a high potential quinone reveals that electron transfer in Photosystem I becomes highly asymmetric at low temperature. <i>Photochemical and Photobiological Sciences</i> , 2012 , 11, 946-56	4.2	34
125	The Evolution of Type I Reaction Centers: The Response to Oxygenic Photosynthesis. <i>Advances in Photosynthesis and Respiration</i> , 2012 , 285-316	1.7	12
124	The FX iron-sulfur cluster serves as the terminal bound electron acceptor in heliobacterial reaction centers. <i>Photosynthesis Research</i> , 2012 , 111, 285-90	3.7	18
123	Purification of the photosynthetic reaction center from <i>Heliobacterium modesticaldum</i> . <i>Photosynthesis Research</i> , 2012 , 111, 291-302	3.7	34
122	Effect of hydrogen bond strength on the redox properties of phylloquinones: a two-dimensional hyperfine sublevel correlation spectroscopy study of photosystem I. <i>Biochemistry</i> , 2011 , 50, 3495-501	3.2	18
121	Wiring photosystem I for electron transfer to a tethered redox dye. <i>Energy and Environmental Science</i> , 2011 , 4, 2428	35.4	5
120	Alteration of the H-bond to the A(1A) phylloquinone in Photosystem I: influence on the kinetics and energetics of electron transfer. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 1751-9	3.4	23
119	Ultrastructural analysis and identification of envelope proteins of " <i>Candidatus Chloracidobacterium thermophilum</i> " chlorosomes. <i>Journal of Bacteriology</i> , 2011 , 193, 6701-11	3.5	35

118	Solar hydrogen-producing bionanodevice outperforms natural photosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 20988-91	11.5	138
117	Chapter 17:Wired Reaction Centers. <i>RSC Energy and Environment Series</i> , 2011 , 464-505	0.6	2
116	The assembly of a multisubunit photosynthetic membrane protein complex: a site-specific spin labeling EPR spectroscopic study of the PsaC subunit in photosystem I. <i>Biochemistry</i> , 2010 , 49, 2398-408	3.2	8
115	Wiring an [FeFe]-hydrogenase with photosystem I for light-induced hydrogen production. <i>Biochemistry</i> , 2010 , 49, 10264-6	3.2	109
114	Wiring photosystem I for direct solar hydrogen production. <i>Biochemistry</i> , 2010 , 49, 404-14	3.2	121
113	Alteration of the Axial Met Ligand to Electron Acceptor A0 in Photosystem I: An Investigation of Electron Transfer at Different Temperatures by Multifrequency Time-Resolved and CW EPR. <i>Applied Magnetic Resonance</i> , 2010 , 37, 103-121	0.8	7
112	Incorporation of 2,3-Disubstituted-1,4-Naphthoquinones into the A1 Binding Site of Photosystem I Studied by EPR and ENDOR Spectroscopy. <i>Applied Magnetic Resonance</i> , 2010 , 37, 65-83	0.8	14
111	Alteration of the Axial Met Ligand to Electron Acceptor A0 in Photosystem I: Effect on the Generation of P ⁺ 700 A ⁺ Radical Pairs as Studied by W-band Transient EPR. <i>Applied Magnetic Resonance</i> , 2010 , 37, 85-102	0.8	28
110	The bound iron-sulfur clusters of type-I homodimeric reaction centers. <i>Photosynthesis Research</i> , 2010 , 104, 333-46	3.7	21
109	Identification and characterization of PshBII, a second FA/FB-containing polypeptide in the photosynthetic reaction center of <i>Heliobacterium modesticaldum</i> . <i>Photosynthesis Research</i> , 2010 , 104, 293-303	3.7	18
108	Protein-cofactor interactions in bioenergetic complexes: the role of the A1A and A1B phylloquinones in Photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2009 , 1787, 1057-88	4.6	110
107	Breaking biological symmetry in membrane proteins: the asymmetrical orientation of PsaC on the pseudo-C2 symmetric Photosystem I core. <i>Cellular and Molecular Life Sciences</i> , 2009 , 66, 1257-70	10.3	15
106	Role of the hydrogen bond from Leu722 to the A1A phylloquinone in photosystem I. <i>Biochemistry</i> , 2009 , 48, 3315-24	3.2	27
105	Understanding of the binding interface between PsaC and the PsaA/PsaB heterodimer in photosystem I. <i>Biochemistry</i> , 2009 , 48, 5405-16	3.2	23
104	Thermodynamics of charge separation of photosystem I in the menA and menB null mutants of <i>Synechocystis</i> sp. PCC 6803 determined by pulsed photoacoustics. <i>Biochemistry</i> , 2009 , 48, 1829-37	3.2	9
103	Removal of the PsaF polypeptide biases electron transfer in favor of the PsaB branch of cofactors in Triton X-100 photosystem I complexes from <i>Synechococcus</i> sp. PCC 7002. <i>Photochemistry and Photobiology</i> , 2008 , 84, 1371-80	3.6	7
102	Unifying principles in homodimeric type I photosynthetic reaction centers: properties of PscB and the FA, FB and FX iron-sulfur clusters in green sulfur bacteria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008 , 1777, 1535-44	4.6	24
101	Photosystem I/molecular wire/metal nanoparticle bioconjugates for the photocatalytic production of H ₂ . <i>Journal of the American Chemical Society</i> , 2008 , 130, 6308-9	16.4	121

100	Biogenesis of iron-sulfur clusters in photosystem I: holo-NfuA from the cyanobacterium <i>Synechococcus</i> sp. PCC 7002 rapidly and efficiently transfers [4Fe-4S] clusters to apo-PsaC in vitro. <i>Journal of Biological Chemistry</i> , 2008 , 283, 28426-35	5.4	33
99	Transient EPR Studies of In Vivo Uptake of Substituted Anthraquinones by Photosystem I in Phylloquinone Biosynthetic Pathway Mutants of <i>Synechocystis</i> sp. PCC 6803 2008 , 227-230		1
98	Identification and characterization of PshB, the dicluster ferredoxin that harbors the terminal electron acceptors F(A) and F(B) in <i>Heliobacterium modesticaldum</i> . <i>Biochemistry</i> , 2007 , 46, 2530-6	3.2	28
97	Chemical rescue of a site-modified ligand to a [4Fe-4S] cluster in PsaC, a bacterial-like dicluster ferredoxin bound to Photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2007 , 1767, 712-24	4.6	33
96	A relationship between amide hydrogen bond strength and quinone reduction potential: implications for photosystem I and bacterial reaction center quinone function. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2007 , 17, 4891-4	2.9	17
95	Heliobacterial photosynthesis. <i>Photosynthesis Research</i> , 2007 , 92, 35-53	3.7	64
94	SufR coordinates two [4Fe-4S] ₂₊ , 1+ clusters and functions as a transcriptional repressor of the sufBCDS operon and an autoregulator of sufR in cyanobacteria. <i>Journal of Biological Chemistry</i> , 2007 , 282, 31909-19	5.4	62
93	Contributions of the protein environment to the midpoint potentials of the A1 phylloquinones and the Fx iron-sulfur cluster in photosystem I. <i>Biochemistry</i> , 2007 , 46, 10804-16	3.2	25
92	Regulatory roles for IscA and SufA in iron homeostasis and redox stress responses in the cyanobacterium <i>Synechococcus</i> sp. strain PCC 7002. <i>Journal of Bacteriology</i> , 2006 , 188, 3182-91	3.5	77
91	Electrostatic influence of PsaC protein binding to the PsaA/PsaB heterodimer in photosystem I. <i>Biophysical Journal</i> , 2006 , 90, 1081-9	2.9	24
90	Identification of FX in the heliobacterial reaction center as a [4Fe-4S] cluster with an S = 3/2 ground spin state. <i>Biochemistry</i> , 2006 , 45, 6756-64	3.2	41
89	Assembly of the Bound Iron-Sulfur Clusters in Photosystem I 2006 , 529-548		8
88	Molecular Interactions of the Stromal Subunit PsaC with the PsaA/PsaB Heterodimer 2006 , 79-98		2
87	Resolution and reconstitution of a bound Fe-S protein from the photosynthetic reaction center of <i>Heliobacterium modesticaldum</i> . <i>Biochemistry</i> , 2005 , 44, 9950-60	3.2	28
86	Asymmetric electron transfer in cyanobacterial Photosystem I: charge separation and secondary electron transfer dynamics of mutations near the primary electron acceptor A0. <i>Biophysical Journal</i> , 2005 , 88, 1238-49	2.9	81
85	Biochemical and biophysical characterization of photosystem I from phytoene desaturase and zeta-carotene desaturase deletion mutants of <i>Synechocystis</i> Sp. PCC 6803: evidence for PsaA- and PsaB-side electron transport in cyanobacteria. <i>Journal of Biological Chemistry</i> , 2005 , 280, 20030-41	5.4	61
84	Recruitment of a foreign quinone into the A1 site of photosystem I. Characterization of a menB rubA double deletion mutant in <i>Synechococcus</i> sp. PCC 7002 devoid of FX, FA, and FB and containing plastoquinone or exchanged 9,10-anthraquinone. <i>Journal of Biological Chemistry</i> , 2005 , 280, 12371-81	5.4	30
83	Photosystem I: FX, FA, and FB Iron-Sulfur Clusters 2004 , 348-356		1

82	The sufR gene (sll0088 in <i>Synechocystis</i> sp. strain PCC 6803) functions as a repressor of the sufBCDS operon in iron-sulfur cluster biogenesis in cyanobacteria. <i>Journal of Bacteriology</i> , 2004 , 186, 956-67	3.5	81
81	Evidence for asymmetric electron transfer in cyanobacterial photosystem I: analysis of a methionine-to-leucine mutation of the ligand to the primary electron acceptor A0. <i>Biochemistry</i> , 2004 , 43, 4741-54	3.2	93
80	Removal of PsaF alters forward electron transfer in photosystem I: evidence for fast reoxidation of QK-A in subunit deletion mutants of <i>Synechococcus</i> sp. PCC 7002. <i>Biochemistry</i> , 2004 , 43, 1264-75	3.2	23
79	Asymmetric Hydrogen-Bonding of the Quinone Cofactor in Photosystem I Probed by ¹³ C-Labeled Naphthoquinones \square <i>Journal of Physical Chemistry B</i> , 2004 , 108, 9439-9448	3.4	46
78	Suppressor mutations in the study of photosystem I biogenesis: sll0088 is a previously unidentified gene involved in reaction center accumulation in <i>Synechocystis</i> sp. strain PCC 6803. <i>Journal of Bacteriology</i> , 2003 , 185, 3878-87	3.5	19
77	The binding of cofactors to photosystem I analyzed by spectroscopic and mutagenic methods. <i>Annual Review of Biophysics and Biomolecular Structure</i> , 2003 , 32, 237-56		44
76	Assembly of protein subunits within the stromal ridge of photosystem I. Structural changes between unbound and sequentially PS I-bound polypeptides and correlated changes of the magnetic properties of the terminal iron sulfur clusters. <i>Journal of Molecular Biology</i> , 2003 , 327, 671-97	6.5	56
75	The menD and menE homologs code for 2-succinyl-6-hydroxyl-2,4-cyclohexadiene-1-carboxylate synthase and O-succinylbenzoic acid-CoA synthase in the phyloquinone biosynthetic pathway of <i>Synechocystis</i> sp. PCC 6803. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2003 , 1557, 67-76	4.6	28
74	Electron transfer in cyanobacterial photosystem I: I. Physiological and spectroscopic characterization of site-directed mutants in a putative electron transfer pathway from A0 through A1 to FX. <i>Journal of Biological Chemistry</i> , 2003 , 278, 27864-75	5.4	70
73	Electron transfer in cyanobacterial photosystem I: II. Determination of forward electron transfer rates of site-directed mutants in a putative electron transfer pathway from A0 through A1 to FX. <i>Journal of Biological Chemistry</i> , 2003 , 278, 27876-87	5.4	87
72	Assembly of photosystem I. II. Rubredoxin is required for the in vivo assembly of F(X) in <i>Synechococcus</i> sp. PCC 7002 as shown by optical and EPR spectroscopy. <i>Journal of Biological Chemistry</i> , 2002 , 277, 20355-66	5.4	80
71	Solution structure of the unbound, oxidized Photosystem I subunit PsaC, containing [4Fe-4S] clusters F(A) and F(B): a conformational change occurs upon binding to photosystem I. <i>Journal of Biological Inorganic Chemistry</i> , 2002 , 7, 461-72	3.7	29
70	Insertional inactivation of the menG gene, encoding 2-phytyl-1,4-naphthoquinone methyltransferase of <i>Synechocystis</i> sp. PCC 6803, results in the incorporation of 2-phytyl-1,4-naphthoquinone into the A(1) site and alteration of the equilibrium constant between A(1) and F(X) in photosystem I. <i>Biochemistry</i> , 2002 , 41, 394-405	3.2	55
69	Assembly of photosystem I. I. Inactivation of the rubA gene encoding a membrane-associated rubredoxin in the cyanobacterium <i>Synechococcus</i> sp. PCC 7002 causes a loss of photosystem I activity. <i>Journal of Biological Chemistry</i> , 2002 , 277, 20343-54	5.4	103
68	Modeling of the P700+ charge recombination kinetics with phyloquinone and plastoquinone-9 in the A1 site of photosystem I. <i>Biophysical Journal</i> , 2002 , 83, 2885-97	2.9	48
67	Recruitment of a foreign quinone into the A1 site of photosystem I. In vivo replacement of plastoquinone-9 by media-supplemented naphthoquinones in phyloquinone biosynthetic pathway mutants of <i>Synechocystis</i> sp. PCC 6803. <i>Journal of Biological Chemistry</i> , 2001 , 276, 39512-21	5.4	55
66	Photoinduced transient absorbance spectra of P840/P840(+) and the FMO protein in reaction centers of <i>Chlorobium vibrioforme</i> . <i>Biophysical Journal</i> , 2001 , 81, 382-93	2.9	6
65	Iron-sulfur clusters in type I reaction centers. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2001 , 1507, 139-60	4.6	104

64	Electron transfer may occur in the chlorosome envelope: the CsmI and CsmJ proteins of chlorosomes are 2Fe-2S ferredoxins. <i>Biochemistry</i> , 2001 , 40, 464-73	3.2	32
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