Ginga Shimakawa

List of Publications by Year in Descending Order

48 papers	833 citations	19 h-index	27 g-index
52 ext. papers	1,131 ext. citations	4.7 avg, IF	4.81 L-index

#	Paper	IF	Citations
48	NADPH production in dark stages is critical for cyanobacterial photocurrent generation: a study using mutants deficient in oxidative pentose phosphate pathway.. *Photosynthesis Research*, **2022**, 1	3.7	1
47	Order-of-magnitude enhancement in photocurrent generation of Synechocystis sp. PCC 6803 by outer membrane deprivation. *Nature Communications*, **2022**, 13,	17.4	1
46	Ferrihydrite Reduction by Photosynthetic sp. PCC 6803 and Its Correlation With Electricity Generation. *Frontiers in Microbiology*, **2021**, 12, 650832	5.7	2
45	Quantification of NAD(P)H in cyanobacterial cells by a phenol extraction method. *Photosynthesis Research*, **2021**, 148, 57-66	3.7	4
44	Dynamic Changes in Protein-Membrane Association for Regulating Photosynthetic Electron Transport. *Cells*, **2021**, 10,	7.9	4
43	Photosynthetic Linear Electron Flow Drives CO Assimilation in Maize Leaves. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	3
42	Coral symbionts evolved a functional polycistronic flavodiiron gene. *Photosynthesis Research*, **2021**, 1	3.7	0
41	Evolutive differentiation between alga- and plant-type plastid terminal oxidase: Study of plastid terminal oxidase PTOX isoforms in Marchantia polymorpha. *Biochimica Et Biophysica Acta - Bioenergetics*, **2021**, 1862, 148309	4.6	2
40	Physiological Roles of Flavodiiron Proteins and Photorespiration in the Liverwort. *Frontiers in Plant Science*, **2021**, 12, 668805	6.2	0
39	Intrinsic Fluctuations in Transpiration Induce Photorespiration to Oxidize P700 in Photosystem I. *Plants*, **2020**, 9,	4.5	12
38	P700 oxidation suppresses the production of reactive oxygen species in photosystem I. *Advances in Botanical Research*, **2020**, 96, 151-176	2.2	11
37	Photoprotection mechanisms under different CO regimes during photosynthesis in a green alga Chlorella variabilis. *Photosynthesis Research*, **2020**, 144, 397-407	3.7	3
36	Near-infrared in vivo measurements of photosystem I and its lumenal electron donors with a recently developed spectrophotometer. *Photosynthesis Research*, **2020**, 144, 63-72	3.7	4
35	Identification of the electron donor to flavodiiron proteins in Synechocystis sp. PCC 6803 by in vivo spectroscopy. *Biochimica Et Biophysica Acta - Bioenergetics*, **2020**, 1861, 148256	4.6	17
34	Characterization of Light-Enhanced Respiration in Cyanobacteria. *International Journal of Molecular Sciences*, **2020**, 22,	6.3	4
33	Role of the two PsaE isoforms on O reduction at photosystem I in Arabidopsis thaliana. *Biochimica Et Biophysica Acta - Bioenergetics*, **2020**, 1861, 148089	4.6	1
32	Changes in Photosynthetic Electron Transport during Leaf Senescence in Two Barley Varieties Grown in Contrasting Growth Regimes. *Plant and Cell Physiology*, **2020**, 61, 1986-1994	4.9	2

31	Over Expression of the Cyanobacterial Pgr5-Homologue Leads to Pseudoreversion in a Gene Coding for a Putative Esterase in Synechocystis 6803. *Life*, **2020**, 10,	3	5
30	Time-of-day-dependent responses of cyanobacterial cellular viability against oxidative stress. *Scientific Reports*, **2020**, 10, 20029	4.9	3
29	What Quantity of Photosystem I Is Optimum for Safe Photosynthesis?. *Plant Physiology*, **2019**, 179, 1479-1485	6.9	23
28	Comparative analysis of strategies to prepare electron sinks in aquatic photoautotrophs. *Photosynthesis Research*, **2019**, 139, 401-411	3.7	19
27	The impact of photosynthesis on initiation of leaf senescence. *Physiologia Plantarum*, **2019**, 166, 148-164	4.6	33
26	Medium-chain dehydrogenase/reductase and aldo-keto reductase scavenge reactive carbonyls in Synechocystis sp. PCC 6803. *FEBS Letters*, **2018**, 592, 1010-1019	3.8	3
25	Light-Harvesting Strategy during CO-Dependent Photosynthesis in the Green Alga Chlamydomonas reinhardtii. *Journal of Physical Chemistry Letters*, **2018**, 9, 1028-1033	6.4	15
24	Respiratory terminal oxidases alleviate photo-oxidative damage in photosystem I during repetitive short-pulse illumination in Synechocystis sp. PCC 6803. *Photosynthesis Research*, **2018**, 137, 241-250	3.7	5
23	Changing frequency of fluctuating light reveals the molecular mechanism for P700 oxidation in plant leaves. *Plant Direct*, **2018**, 2, e00073	3.3	18
22	Reduction-Induced Suppression of Electron Flow (RISE) Is Relieved by Non-ATP-Consuming Electron Flow in PCC 7942. *Frontiers in Microbiology*, **2018**, 9, 886	5.7	22
21	Responses of the chloroplast glyoxalase system to high CO concentrations. *Bioscience, Biotechnology and Biochemistry*, **2018**, 82, 2072-2083	2.1	6
20	Oxidation of P700 Ensures Robust Photosynthesis. *Frontiers in Plant Science*, **2018**, 9, 1617	6.2	47
19	The Liverwort, , Drives Alternative Electron Flow Using a Flavodiiron Protein to Protect PSI. *Plant Physiology*, **2017**, 173, 1636-1647	6.6	65
18	Land plants drive photorespiration as higher electron-sink: comparative study of post-illumination transient O -uptake rates from liverworts to angiosperms through ferns and gymnosperms. *Physiologia Plantarum*, **2017**, 161, 138-149	4.6	35
17	Diversity of strategies for escaping reactive oxygen species production within photosystem I among land plants: P700 oxidation system is prerequisite for alleviating photoinhibition in photosystem I. *Physiologia Plantarum*, **2017**, 161, 56-74	4.6	53
16	A Carbon Dioxide Limitation-Inducible Protein, ColA, Supports the Growth of Synechococcus sp. PCC 7002. *Marine Drugs*, **2017**, 15,	6	2
15	Diverse strategies of O usage for preventing photo-oxidative damage under CO limitation during algal photosynthesis. *Scientific Reports*, **2017**, 7, 41022	4.9	27
14	Reduction-Induced Suppression of Electron Flow (RISE) in the Photosynthetic Electron Transport System of Synechococcus elongatus PCC 7942. *Plant and Cell Physiology*, **2016**, 57, 1443-1453	4.9	39

13	Post-illumination transient O -uptake is driven by photorespiration in tobacco leaves. *Physiologia Plantarum*, **2016**, 156, 227-238	4.6	25
12	Diversity in photosynthetic electron transport under [CO]-limitation: the cyanobacterium Synechococcus sp. PCC 7002 and green alga Chlamydomonas reinhardtii drive an O-dependent alternative electron flow and non-photochemical quenching of chlorophyll fluorescence during CO-limited photosynthesis. *Photosynthesis Research*, **2016**, 130, 293-305	3.7	19
11	Oxidation of P700 in Photosystem I Is Essential for the Growth of Cyanobacteria. *Plant Physiology*, **2016**, 172, 1443-1450	6.6	41
10	FLAVODIIRON2 and FLAVODIIRON4 proteins mediate an oxygen-dependent alternative electron flow in Synechocystis sp. PCC 6803 under CO2-limited conditions. *Plant Physiology*, **2015**, 167, 472-80	6.6	54
9	O2-dependent large electron flow functioned as an electron sink, replacing the steady-state electron flux in photosynthesis in the cyanobacterium Synechocystis sp. PCC 6803, but not in the cyanobacterium Synechococcus sp. PCC 7942. *Bioscience, Biotechnology and Biochemistry*, **2014**, 78, 384-93	2.1	27
8	Why don't plants have diabetes? Systems for scavenging reactive carbonyls in photosynthetic organisms. *Biochemical Society Transactions*, **2014**, 42, 543-7	5.1	18
7	Overexpression of flv3 improves photosynthesis in the cyanobacterium Synechocystis sp. PCC6803 by enhancement of alternative electron flow. *Biotechnology for Biofuels*, **2014**, 7, 493	7.8	32
6	Respiration accumulates Calvin cycle intermediates for the rapid start of photosynthesis in Synechocystis sp. PCC 6803. *Bioscience, Biotechnology and Biochemistry*, **2014**, 78, 1997-2007	2.1	25
5	The Calvin cycle inevitably produces sugar-derived reactive carbonyl methylglyoxal during photosynthesis: a potential cause of plant diabetes. *Plant and Cell Physiology*, **2014**, 55, 333-40	4.9	40
4	Functional analysis of the AKR4C subfamily of Arabidopsis thaliana: model structures, substrate specificity, acrolein toxicity, and responses to light and [CO(2)]. *Bioscience, Biotechnology and Biochemistry*, **2013**, 77, 2038-45	2.1	29
3	Scavenging systems for reactive carbonyls in the cyanobacterium Synechocystis sp. PCC 6803. *Bioscience, Biotechnology and Biochemistry*, **2013**, 77, 2441-8	2.1	15
2	Acrolein, an α,β-unsaturated carbonyl, inhibits both growth and PSII activity in the cyanobacterium Synechocystis sp. PCC 6803. *Bioscience, Biotechnology and Biochemistry*, **2013**, 77, 1655-60	2.1	15
1	Time-of-day-dependent responses of cyanobacterial cellular viability against oxidative stress		1