Tatsuya Tomo

List of Publications by Year
in descending order

114 papers	3,545 citations	126907 33 h-index	161849 54 g-index
120 all docs	120 docs citations	120 times ranked	2691 citing authors

#	Article	IF	Citations
1	Niche adaptation and genome expansion in the chlorophyll <i>d</i> -producing cyanobacterium <i>Acaryochloris marina</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2005-2010.	7.1	210
2	Is the primary cause of thermal inactivation of oxygen evolution in spinach PS II membranes release of the extrinsic 33 kDa protein or of Mn?. Biochimica Et Biophysica Acta - Bioenergetics, 1994, 1186, 52-58.	1.0	191
3	Hydrogen production from phototrophic microorganisms: Reality and perspectives. International Journal of Hydrogen Energy, 2019, 44, 5799-5811.	7.1	176
4	Identification of the special pair of photosystem II in a chlorophyll d-dominated cyanobacterium. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7283-7288.	7.1	123
5	Fourier Transform Infrared Study of the Cation Radical of P680 in the Photosystem II Reaction Center:â€‰ Evidence for Charge Delocalization on the Chlorophyll Dimer. Biochemistry, 1998, 37, 13614-13625.	2.5	90
6	Redox potential of pheophytin <i>a</i> in photosystem II of two cyanobacteria having the different special pair chlorophylls. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3924-3929.	7.1	88
7	Redox potentials of primary electron acceptor quinone molecule (Q _A) ^{âˆ’} and conserved energetics of photosystem II in cyanobacteria with chlorophyll <i>a</i> and chlorophyll <i>d</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8054-8058.	7.1	83
8	Structural basis for the adaptation and function of chlorophyll f in photosystem I. Nature Communications, 2020, 11, 238.	12.8	75
9	Characterization of Highly Purified Photosystem I Complexes from the Chlorophyll d-dominated Cyanobacterium Acaryochloris marina MBIC 11017. Journal of Biological Chemistry, 2008, 283, 18198-18209.	3.4	70
10	Determination of the potential of cyanobacterial strains for hydrogen production. International Journal of Hydrogen Energy, 2020, 45, 2627-2639.	7.1	68
11	Perturbation of the Structure of P680 and the Charge Distribution on Its Radical Cation in Isolated Reaction Center Complexes of Photosystem II as Revealed by Fourier Transform Infrared Spectroscopy. Biochemistry, 2007, 46, 4390-4397.	2.5	65
12	Comparison of oligomeric states and polypeptide compositions of fucoxanthin chlorophyll a/c-binding protein complexes among various diatom species. Photosynthesis Research, 2013, 117, 281-288.	2.9	65
13	Intramolecular Cross-linking of the Extrinsic 33-kDa Protein Leads to Loss of Oxygen Evolution but Not Its Ability of Binding to Photosystem II and Stabilization of the Manganese Cluster. Journal of Biological Chemistry, 1998, 273, 4629-4634.	3.4	64
14	Purification and characterization of a stable oxygen-evolving Photosystem II complex from a marine centric diatom, Chaetoceros gracilis. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 160-166.	1.0	63
15	Chlorophylls d and f and their role in primary photosynthetic processes of cyanobacteria. Biochemistry (Moscow), 2016, 81, 201-212.	1.5	63
16	Triplet Formation on a Monomeric Chlorophyll in the Photosystem II Reaction Center As Studied by Time-Resolved Infrared Spectroscopy. Biochemistry, 2001, 40, 2176-2185.	2.5	59
17	Delayed fluorescence observed in the nanosecond time region at 77Â K originates directly from the photosystem II reaction center. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 327-334.	1.0	59
18	Photosynthesis supported by a chlorophyll f-dependent, entropy-driven uphill energy transfer in Halomicronema hongdechloris cells adapted to far-red light. Photosynthesis Research, 2019, 139, 185-201.	2.9	59

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19	15-cis-Î²-Carotene found in the reaction center of spinach photosystem II. FEBS Letters, 1995, 363, 137-140.	2.8	57
20	High Excitation Energy Quenching in Fucoxanthin Chlorophyll <i>a</i>/<i>c</i>-Binding Protein Complexes from the Diatom Chaetoceros gracilis. Journal of Physical Chemistry B, 2013, 117, 6888-6895.	2.6	56
21	Binding and Functional Properties of the Extrinsic Proteins in Oxygen-Evolving Photosystem II Particle from a Green Alga, Chlamydomonas reinhardtii having His-tagged CP47. Plant and Cell Physiology, 2003, 44, 76-84.	3.1	55
22	Platinum/manganese oxide nanocomposites as water-oxidizing catalysts: New findings and current controversies. International Journal of Hydrogen Energy, 2015, 40, 10825-10832.	7.1	54
23	Photosystem IIâ€"Gold Nanoparticle Conjugate as a Nanodevice for the Development of Artificial Light-Driven Water-Splitting Systems. Journal of Physical Chemistry Letters, 2011, 2, 2448-2452.	4.6	52
24	Bioprocesses of hydrogen production by cyanobacteria cells and possible ways to increase their productivity. Renewable and Sustainable Energy Reviews, 2020, 133, 110054.	16.4	52
25	Effect of a Single-Amino Acid Substitution of the 43 kDa Chlorophyll Protein on the Oxygen-Evolving Reaction of the Cyanobacterium <i>Synechocystis</i> sp. PCC 6803: Analysis of the Glu354Gln Mutation. Biochemistry, 2009, 48, 6095-6103.	2.5	49
26	Nanostructured manganese oxide/carbon nanotubes, graphene and graphene oxide as water-oxidizing composites in artificial photosynthesis. Dalton Transactions, 2014, 43, 10866-10876.	3.3	49
27	Binding and Functional Properties of Five Extrinsic Proteins in Oxygen-evolving Photosystem II from a Marine Centric Diatom, Chaetoceros gracilis*. Journal of Biological Chemistry, 2010, 285, 29191-29199.	3.4	41
28	Excitation relaxation dynamics and energy transfer in fucoxanthinâ€"chlorophyll a/c-protein complexes, probed by time-resolved fluorescence. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1514-1521.	1.0	41
29	Relationship Between Photochemical Quenching and Non-Photochemical Quenching in Six Species of Cyanobacteria Reveals Species Difference in Redox State and Species Commonality in Energy Dissipation. Plant and Cell Physiology, 2016, 57, pcv185.	3.1	41
30	Identification of a New Excited State Responsible for the in vivo Unique Absorption Band of Siphonaxanthin in the Green Alga <i>Codium fragile</i>. Journal of Physical Chemistry B, 2007, 111, 9179-9181.	2.6	39
31	Light-Harvesting Ability of the Fucoxanthin Chlorophyll <i>a</i>/<i>c</i>-Binding Protein Associated with Photosystem II from the Diatom <i>Chaetoceros gracilis</i> As Revealed by Picosecond Time-Resolved Fluorescence Spectroscopy. Journal of Physical Chemistry B, 2014, 118, 5093-5100.	2.6	38
32	Topological Analysis of the Extrinsic PsbO, PsbP and PsbQ Proteins in a Green Algal PSII Complex by Cross-Linking with a Water-Soluble Carbodiimide. Plant and Cell Physiology, 2010, 51, 718-727.	3.1	35
33	Raman Spectroscopy and Its Modifications Applied to Biological and Medical Research. Cells, 2022, 11, 386.	4.1	35
34	Constitution and energetics of photosystem I and photosystem II in the chlorophyll d-dominated cyanobacterium Acaryochloris marina. Journal of Photochemistry and Photobiology B: Biology, 2011, 104, 333-340.	3.8	34
35	Identification of a photochemically inactive pheophytin molecule in the spinach D1-D2-cyt b559 complex. Biochimica Et Biophysica Acta - Bioenergetics, 1995, 1232, 81-88.	1.0	33
36	Proteases are associated with a minor fucoxanthin chlorophyll a/c-binding protein from the diatom, Chaetoceros gracilis. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 2110-2117.	1.0	33

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37	Metabolic Engineering of the Chl d-Dominated Cyanobacterium Acaryochloris marina: Production of a Novel Chl Species by the Introduction of the Chlorophyllide a Oxygenase Gene. Plant and Cell Physiology, 2012, 53, 518-527.	3.1	33
38	Topology of pigments in the isolated Photosystem II reaction center studied by selective extraction. Biochimica Et Biophysica Acta - Bioenergetics, 1997, 1321, 21-30.	1.0	31
39	The distance between P680 and QA in Photosystem II determined by ESEEM spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 1997, 1322, 77-85.	1.0	31
40	Energy transfer processes in chlorophyll f-containing cyanobacteria using time-resolved fluorescence spectroscopy on intact cells. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1484-1489.	1.0	31
41	Two unique cyanobacteria lead to a traceable approach of the first appearance of oxygenic photosynthesis. Photosynthesis Research, 2008, 97, 167-176.	2.9	30
42	Control Mechanism of Excitation Energy Transfer in a Complex Consisting of Photosystem II and Fucoxanthin Chlorophyll <i>a</i>/<i>c</i>-Binding Protein. Journal of Physical Chemistry Letters, 2014, 5, 2983-2987.	4.6	30
43	Nanolayered manganese oxide/C₆₀composite: a good water-oxidizing catalyst for artificial photosynthetic systems. Dalton Transactions, 2014, 43, 12058-12064.	3.3	30
44	Regulation of excitation energy transfer in diatom PSII dimer: How does it change the destination of excitation energy?. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1274-1282.	1.0	29
45	Speciesâ€dependence of the redox potential of the primary quinone electron acceptor Q_A in photosystem II verified by spectroelectrochemistry. FEBS Letters, 2010, 584, 1526-1530.	2.8	28
46	Photobiological hydrogen production and artificial photosynthesis for clean energy: from bio to nanotechnologies. Photosynthesis Research, 2015, 126, 237-247.	2.9	28
47	Orientation and nearest neighbor analysis ofpsbI gene product in the photosystem II reaction center complex using bifunctional cross-linkers. FEBS Letters, 1993, 323, 15-18.	2.8	27
48	Crystal Structure of Psb31, a Novel Extrinsic Protein of Photosystem II from a Marine Centric Diatom and Implications for Its Binding and Function. Biochemistry, 2013, 52, 6646-6652.	2.5	27
49	Nanostructured manganese oxide on frozen smoke: A new water-oxidizing composite. International Journal of Hydrogen Energy, 2016, 41, 2466-2476.	7.1	27
50	Solvent effects on excitation relaxation dynamics of a keto-carotenoid, siphonaxanthin. Photochemical and Photobiological Sciences, 2008, 7, 1206-1209.	2.9	26
51	Mn oxide/nanodiamond composite: a new water-oxidizing catalyst for water oxidation. RSC Advances, 2014, 4, 37613-37619.	3.6	25
52	Comparison of nano-sized Mn oxides with the Mn cluster of photosystem II as catalysts for water oxidation. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 294-306.	1.0	25
53	Photosensing System Using Photosystem I and Gold Nanoparticle on Graphene Field-Effect Transistor. ACS Applied Materials & Interfaces, 2019, 11, 42773-42779.	8.0	24
54	Energy transfer in the chlorophyll f-containing cyanobacterium, Halomicronema hongdechloris, analyzed by time-resolved fluorescence spectroscopies. Photosynthesis Research, 2015, 125, 115-122.	2.9	23

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55	Replacement of chlorophyll with di-vinyl chlorophyll in the antenna and reaction center complexes of the cyanobacterium Synechocystis sp. PCC 6803: Characterization of spectral and photochemical properties. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 191-200.	1.0	22
56	International conference on â€œPhotosynthesis research for sustainability-2015â€•in honor of George C. Papageorgiouâ€, September 21â€"26, 2015, Crete, Greece. Photosynthesis Research, 2016, 130, 1-10.	2.9	22
57	Immobilization of the three extrinsic proteins in spinach oxygen-evolving Photosystem II membranes: roles of the proteins in stabilization of binding of Mn and Ca2+. Biochimica Et Biophysica Acta - Bioenergetics, 1994, 1185, 75-80.	1.0	21
58	Isolation and spectral characterization of Photosystem II reaction center from Synechocystis sp. PCC 6803. Photosynthesis Research, 2008, 98, 293-302.	2.9	20
59	Degradation of the D1 Protein of Photosystem II under Illuminationin Vivo:Â Two Different Pathways Involving Cleavage or Intermolecular Cross-Linkingâ€. Biochemistry, 2003, 42, 10034-10044.	2.5	19
60	Effects of Extrinsic Proteins on the Protein Conformation of the Oxygen-Evolving Center in Cyanobacterial Photosystem II As Revealed by Fourier Transform Infrared Spectroscopy. Biochemistry, 2015, 54, 2022-2031.	2.5	19
61	Site-directed mutagenesis of amino acid residues of D1 protein interacting with phosphatidylglycerol affects the function of plastoquinone QB in photosystem II. Photosynthesis Research, 2015, 126, 385-397.	2.9	18
62	Photocurrent Generation of Reconstituted Photosystem II on a Self-Assembled Gold Film. Langmuir, 2017, 33, 1351-1358.	3.5	18
63	Direct measurement of singlet oxygen produced by four chlorin-ringed chlorophyll species in acetone solution. Chemical Physics Letters, 2010, 485, 202-206.	2.6	17
64	Alterations in photosynthetic pigments and amino acid composition of D1 protein change energy distribution in photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 754-759.	1.0	17
65	Artificially produced [7-formyl]-chlorophyll d functions as an antenna pigment in the photosystem II isolated from the chlorophyllide a oxygenase-expressing Acaryochloris marina. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1285-1291.	1.0	16
66	Structural Coupling of Extrinsic Proteins with the Oxygen-Evolving Center in Red Algal Photosystem II As Revealed by Light-Induced FTIR Difference Spectroscopy. Biochemistry, 2013, 52, 5705-5707.	2.5	16
67	The functional sites of chlorophylls in D1 and D2 subunits of Photosystem II identified by pulsed EPR. Photosynthesis Research, 2005, 84, 187-192.	2.9	15
68	Reversible absorption change of chlorophyll d in solutions. Chemical Physics Letters, 2006, 423, 282-287.	2.6	15
69	Water exchange in manganese-based water-oxidizing catalysts in photosynthetic systems: From the water-oxidizing complex in photosystem II to nano-sized manganese oxides. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1395-1410.	1.0	15
70	Spectral properties of the CP43-deletion mutant of Synechocystis sp. PCC 6803. Photosynthesis Research, 2008, 98, 303-314.	2.9	14
71	Herbicide effect on the photodamage process of photosystem II: Fourier transform infrared study. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 1214-1220.	1.0	14
72	Proton ENDOR study of the primary donor P740+, a special pair of chlorophyll d in photosystem I reaction center of Acaryochloris marina. Chemical Physics Letters, 2005, 411, 262-266.	2.6	13

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73	Molecular environments of divinyl chlorophylls in Prochlorococcus and Synechocystis: Differences in fluorescence properties with chlorophyll replacement. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 471-481.	1.0	13
74	Lightâ€independent biosynthesis and assembly of the photosystem II complex in the diatom <i>Chaetoceros gracilis</i>. FEBS Letters, 2013, 587, 1340-1345.	2.8	13
75	Nearest neighbor analysis of D1 and D2 subunits in the photosystem II reaction center using a bifunctional cross-linker, hexamethylene diisocyanate. FEBS Letters, 1994, 351, 27-30.	2.8	12
76	Pigment exchange of Photosystem II reaction center by chlorophyll d. Photosynthesis Research, 2005, 84, 77-83.	2.9	12
77	Manganese oxides supported on gold nanoparticles: new findings and current controversies for the role of gold. Photosynthesis Research, 2015, 126, 477-487.	2.9	12
78	Luminescence of singlet oxygen in photosystem II complexes isolated from cyanobacterium Synechocystis sp. PCC6803 containing monovinyl or divinyl chlorophyll a. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1299-1305.	1.0	11
79	Conjugates between photosystem I and a carbon nanotube for a photoresponse device. Photosynthesis Research, 2017, 133, 155-162.	2.9	11
80	A nanosized Mn oxide/boron nitride composite as a catalyst for water oxidation. New Journal of Chemistry, 2017, 41, 10627-10633.	2.8	11
81	Conversion of photosystem II dimer to monomers during photoinhibition is tightly coupled with decrease in oxygen-evolving activity in the diatom Chaetoceros gracilis. Photosynthesis Research, 2016, 130, 83-91.	2.9	10
82	Rapid solubility measurement of protein crystals as a function of precipitant concentration with micro-dialysis cell and two-beam interferometer. Journal of Synchrotron Radiation, 2004, 11, 34-37.	2.4	9
83	A nano-sized manganese oxide in a protein matrix as a natural water-oxidizing site. Plant Physiology and Biochemistry, 2014, 81, 3-15.	5.8	9
84	International Conference on â€œPhotosynthesis and Hydrogen Energy Research for Sustainability-2017â€. Photosynthesis Research, 2019, 139, 1-8.	2.9	9
85	Nano-sized manganese-calcium cluster in photosystem II. Biochemistry (Moscow), 2014, 79, 324-336.	1.5	8
86	Gold nanorods or nanoparticles deposited on layered manganese oxide: new findings. New Journal of Chemistry, 2015, 39, 7260-7267.	2.8	8
87	Modified molecular interactions of the pheophytin and plastoquinone electron acceptors in photosystem II of chlorophyll d-containing Acaryochloris marina as revealed by FTIR spectroscopy. Photosynthesis Research, 2015, 125, 105-114.	2.9	7
88	Nanostructured manganese oxide on silica aerogel: a new catalyst toward water oxidation. Photosynthesis Research, 2016, 130, 225-235.	2.9	7
89	Preface: photosynthesis and hydrogen energy research for sustainability. Photosynthesis Research, 2017, 133, 1-3.	2.9	7
90	Electrostatic interaction of positive charges on the surface of Psb31 with photosystem II in the diatom Chaetoceros gracilis. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 779-785.	1.0	7

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91	Nanosized manganese oxide/holmium oxide: a new composite for water oxidation. New Journal of Chemistry, 2017, 41, 13732-13741.	2.8	7
92	A new strategy to make an artificial enzyme: photosystem II around nanosized manganese oxide. Catalysis Science and Technology, 2017, 7, 4451-4461.	4.1	7
93	Photoelectric Conversion System Composed of Gene-Recombined Photosystem I and Platinum Nanoparticle Nanosheet. Langmuir, 2020, 36, 6429-6435.	3.5	7
94	Cross-Sectional TEM Analysis of an ITO Surface Coated with Photosystem I and Molecular Wires. Journal of Inorganic and Organometallic Polymers and Materials, 2016, 26, 1309-1312.	3.7	5
95	A Photochemical Hydrogen Evolution System Combining Cyanobacterial Photosystem I and Platinum Nanoparticle-terminated Molecular Wires. Chemistry Letters, 2017, 46, 1479-1481.	1.3	5
96	Functional role of Lys residues of Psb31 in electrostatic interactions with diatom photosystem <scp>II</scp>. FEBS Letters, 2017, 591, 3259-3264.	2.8	4
97	Spectral Properties of Chlorophyll <i>f</i> in the B800 Cavity of Lightâ€harvesting Complex 2 from the Purple Photosynthetic Bacterium <i>Rhodoblastus acidophilus</i>. Photochemistry and Photobiology, 2022, 98, 169-174.	2.5	4
98	The 10th international conference on â€œPhotosynthesis and Hydrogen Energy Research for sustainabilityâ€ A pictorial report in honor of Tingyun Kuang, Anthony Larkum, Cesare Marchetti and Kimiyuki Satoh. International Journal of Hydrogen Energy, 2019, 44, 30927-30934.	7.1	3
99	Unsupervised classification of PSII with and without water-oxidizing complex samples by PARAFAC resolution of excitation-emission fluorescence images. Journal of Photochemistry and Photobiology B: Biology, 2019, 195, 58-66.	3.8	3
100	Detection of the D0â†’D1transition of Î²-carotene radical cation photoinduced in photosystem II. Photochemical and Photobiological Sciences, 2009, 8, 157-161.	2.9	2
101	AÂ gold nanoparticle conjugate with photosystemÂ I and photosystemÂ II for development of a biohybrid water-splitting photocatalyst. Biomedical Spectroscopy and Imaging, 2020, 9, 73-81.	1.2	2
102	Unique Optical Properties of LHC II Isolated from Codium fragile â€“ Its Correlation to Protein Environment. , 2008, , 343-346.		2
103	Special issue on Photosynthesis Research for Sustainability. Plant Physiology and Biochemistry, 2014, 81, 1-2.	5.8	1
104	Peptide aptamer-assisted immobilization of green fluorescent protein for creating biomolecule-complexed carbon nanotube device. Japanese Journal of Applied Physics, 2017, 56, 107001.	1.5	1
105	Lysyl oxidaseâ€like protein secreted from an acidophilic red alga, <i>Cyanidium caldarium</i>. Plant Direct, 2018, 2, e00084.	1.9	1
106	Links between peptides and Mn oxide: nano-sized manganese oxide embedded in a peptide matrix. New Journal of Chemistry, 2018, 42, 10067-10077.	2.8	1
107	Chlorophyll Species and Their Functions in the Photosynthetic Energy Conversion. Advances in Photosynthesis and Respiration, 2021, , 133-161.	1.0	1
108	1P-230 FTIR study on the structure of CP43-E354 in the photosynthetic oxygen-evolving center(Photobiology:Photosynthesis, The 47th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2009, 49, S98.	0.1	0

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109	2P289 1A1325 Spectroelectrochemical investigation of redox potential of the primary quinone electron acceptor QA in photosystem II for various species(The 48th Annual Meeting of the) Tj ETQq1 1 0.784314 rg BT /Overlock 10 Tf	0.1	0
110	Metal and Serine Proteases in the Crude Photosystem II Particles from a Diatom, Chaetoceros Gracilis. Advanced Topics in Science and Technology in China, 2013, , 83-85.	0.1	0
111	Heat-Induced Pigment Alteration in the Photosystem I and II Reaction Centers. , 1995, , 1117-1120.		0
112	Topological Analysis of PS II Reaction Center Using Monoclonal Antibodies. , 1998, , 993-996.		0
113	FTIR Study of the Cation Radical of P680 in the Photosystem II Reaction Center: Structural Model of P680. , 1998, , 1049-1052.		0
114	Nanostructured Mn Oxide/Carboxylic Acid or Amine Functionalized Carbon Nanotubes as Water-Oxidizing Composites in Artificial Photosynthesis. , 2017, , 321-331.		0