

# Takumi Noguchi

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/3966874/takumi-noguchi-publications-by-citations.pdf>

**Version:** 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

125  
papers

4,820  
citations

41  
h-index

65  
g-index

126  
ext. papers

5,300  
ext. citations

4.8  
avg. IF

5.99  
L-index

#	Paper	IF	Citations
125	Light-induced structural changes and the site of O=O bond formation in PSII caught by XFEL. <i>Nature</i> , <b>2017</b> , 543, 131-135	50.4	400
124	Vibrational Spectra and Ab Initio DFT Calculations of 4-Methylimidazole and Its Different Protonation Forms: Infrared and Raman Markers of the Protonation State of a Histidine Side Chain. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 4253-4265	3.4	159
123	Flash-induced FTIR difference spectra of the water oxidizing complex in moderately hydrated photosystem II core films: effect of hydration extent on S-state transitions. <i>Biochemistry</i> , <b>2002</b> , 41, 2322-30	3.2	146
122	Direct detection of a carboxylate bridge between Mn and Ca <sup>2+</sup> in the photosynthetic oxygen-evolving center by means of Fourier transform infrared spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1995</b> , 1228, 189-200	4.6	126
121	FTIR detection of water reactions in the oxygen-evolving centre of photosystem II. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2008</b> , 363, 1189-94; discussion 1194-5	5.8	122
120	Analysis of flash-induced FTIR difference spectra of the S-state cycle in the photosynthetic water-oxidizing complex by uniform <sup>15</sup> N and <sup>13</sup> C isotope labeling. <i>Biochemistry</i> , <b>2003</b> , 42, 6035-42	3.2	122
119	Structure of a histidine ligand in the photosynthetic oxygen-evolving complex as studied by light-induced fourier transform infrared difference spectroscopy. <i>Biochemistry</i> , <b>1999</b> , 38, 10187-95	3.2	120
118	Identification of the special pair of photosystem II in a chlorophyll d-dominated cyanobacterium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 7283-8	11.5	105
117	Structural coupling between the oxygen-evolving Mn cluster and a tyrosine residue in photosystem II as revealed by Fourier transform infrared spectroscopy. <i>Biochemistry</i> , <b>1997</b> , 36, 14705-11	3.2	101
116	Monitoring proton release during photosynthetic water oxidation in photosystem II by means of isotope-edited infrared spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 7849-57	16.4	96
115	FTIR detection of water reactions during the flash-induced S-state cycle of the photosynthetic water-oxidizing complex. <i>Biochemistry</i> , <b>2002</b> , 41, 15706-12	3.2	95
114	Structure of an active water molecule in the water-oxidizing complex of photosystem II as studied by FTIR spectroscopy. <i>Biochemistry</i> , <b>2000</b> , 39, 10943-9	3.2	94
113	Fourier transform infrared analysis of the photosynthetic oxygen-evolving center. <i>Coordination Chemistry Reviews</i> , <b>2008</b> , 252, 336-346	23.2	91
112	Flash-induced Fourier transform infrared detection of the structural changes during the S-state cycle of the oxygen-evolving complex in photosystem II. <i>Biochemistry</i> , <b>2001</b> , 40, 1497-502	3.2	91
111	Detection of structural changes upon S <sub>1</sub> -to-S <sub>2</sub> transition in the oxygen-evolving manganese cluster in photosystem II by light-induced Fourier transform infrared difference spectroscopy. <i>Biochemistry</i> , <b>1992</b> , 31, 5953-6	3.2	91
110	Fourier transform infrared study of the cation radical of P680 in the photosystem II reaction center: evidence for charge delocalization on the chlorophyll dimer. <i>Biochemistry</i> , <b>1998</b> , 37, 13614-25	3.2	80
109	Photosensitive nitrile hydratase intrinsically possesses nitric oxide bound to the non-heme iron center: evidence by Fourier transform infrared spectroscopy. <i>FEBS Letters</i> , <b>1995</b> , 358, 9-12	3.8	78

108	Ab Initio Density Functional Theory Calculations and Vibrational Analysis of Zinc-Bound 4-Methylimidazole as a Model of a Histidine Ligand in Metalloenzymes[] <i>Journal of Physical Chemistry A</i> , <b>2002</b> , 106, 3377-3390	2.8	76
107	Fourier transform infrared difference and time-resolved infrared detection of the electron and proton transfer dynamics in photosynthetic water oxidation. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2015</b> , 1847, 35-45	4.6	75
106	Light-induced FTIR difference spectroscopy as a powerful tool toward understanding the molecular mechanism of photosynthetic oxygen evolution. <i>Photosynthesis Research</i> , <b>2007</b> , 91, 59-69	3.7	75
105	Time-resolved infrared detection of the proton and protein dynamics during photosynthetic oxygen evolution. <i>Biochemistry</i> , <b>2012</b> , 51, 3205-14	3.2	68
104	Monitoring water reactions during the S-state cycle of the photosynthetic water-oxidizing center: detection of the DOD bending vibrations by means of Fourier transform infrared spectroscopy. <i>Biochemistry</i> , <b>2008</b> , 47, 11024-30	3.2	66
103	Hydrogen bonding interaction between the primary quinone acceptor QA and a histidine side chain in photosystem II as revealed by Fourier transform infrared spectroscopy. <i>Biochemistry</i> , <b>1999</b> , 38, 399-403	3.2	66
102	Fourier transform infrared spectrum of the radical cation of beta-carotene photoinduced in photosystem II. <i>FEBS Letters</i> , <b>1994</b> , 356, 179-82	3.8	66
101	Site-directed mutagenesis of <i>Thermosynechococcus elongatus</i> photosystem II: the O <sub>2</sub> -evolving enzyme lacking the redox-active tyrosine D. <i>Biochemistry</i> , <b>2004</b> , 43, 13549-63	3.2	65
100	Protonation structures of Cys-sulfinic and Cys-sulfenic acids in the photosensitive nitrile hydratase revealed by Fourier transform infrared spectroscopy. <i>Biochemistry</i> , <b>2003</b> , 42, 11642-50	3.2	60
99	Dual role of triplet localization on the accessory chlorophyll in the photosystem II reaction center: photoprotection and photodamage of the D1 protein. <i>Plant and Cell Physiology</i> , <b>2002</b> , 43, 1112-6	4.9	60
98	Influence of histidine-198 of the D1 subunit on the properties of the primary electron donor, P680, of photosystem II in <i>Thermosynechococcus elongatus</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2008</b> , 1777, 331-42	4.6	57
97	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. <i>Biochemistry</i> , <b>2007</b> , 46, 4390-7	3.2	54
96	Triplet formation on a monomeric chlorophyll in the photosystem II reaction center as studied by time-resolved infrared spectroscopy. <i>Biochemistry</i> , <b>2001</b> , 40, 2176-85	3.2	54
95	Fourier transform infrared detection of a polarizable proton trapped between photooxidized tyrosine YZ and a coupled histidine in photosystem II: relevance to the proton transfer mechanism of water oxidation. <i>Biochemistry</i> , <b>2014</b> , 53, 3131-44	3.2	52
94	Redox potential of the terminal quinone electron acceptor QB in photosystem II reveals the mechanism of electron transfer regulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 620-5	11.5	50
93	Functional roles of D2-Lys317 and the interacting chloride ion in the water oxidation reaction of photosystem II as revealed by fourier transform infrared analysis. <i>Biochemistry</i> , <b>2013</b> , 52, 4748-57	3.2	50
92	Monitoring the Reaction Process During the S <sub>1</sub> -to-S <sub>2</sub> Transition in Photosynthetic Water Oxidation Using Time-Resolved Infrared Spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 2022-2029	16.4	49
91	Identification of Fourier transform infrared signals from the non-heme iron in photosystem II. <i>Journal of Biochemistry</i> , <b>1995</b> , 118, 9-12	3.1	49

90	FTIR evidence that the PsbP extrinsic protein induces protein conformational changes around the oxygen-evolving Mn cluster in photosystem II. <i>Biochemistry</i> , <b>2009</b> , 48, 6318-25	3.2	48
89	pH dependence of the flash-induced S-state transitions in the oxygen-evolving center of photosystem II from <i>Thermosynechococcus elongatus</i> as revealed by Fourier transform infrared spectroscopy. <i>Biochemistry</i> , <b>2005</b> , 44, 1708-18	3.2	47
88	Correlation between the hydrogen-bond structures and the C=O stretching frequencies of carboxylic acids as studied by density functional theory calculations: theoretical basis for interpretation of infrared bands of carboxylic groups in proteins. <i>Journal of Physical Chemistry B</i> , <b>2008</b> , 112, 6725-31	3.4	46
87	Structural perturbation of the carboxylate ligands to the manganese cluster upon Ca <sup>2+</sup> /Sr <sup>2+</sup> exchange in the S-state cycle of photosynthetic oxygen evolution as studied by flash-induced FTIR difference spectroscopy. <i>Biochemistry</i> , <b>2006</b> , 45, 13454-64	3.2	46
86	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. <i>Biochemistry</i> , <b>2009</b> , 48, 6095-103	3.2	44
85	Density functional theory calculations on the dielectric constant dependence of the oxidation potential of chlorophyll: implication for the high potential of P680 in photosystem II. <i>Biochemistry</i> , <b>2005</b> , 44, 8865-72	3.2	42
84	The PsbQ protein stabilizes the functional binding of the PsbP protein to photosystem II in higher plants. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2012</b> , 1817, 1346-51	4.6	41
83	Structures and binding sites of phenolic herbicides in the Q(B) pocket of photosystem II. <i>Biochemistry</i> , <b>2010</b> , 49, 5445-54	3.2	41
82	Quantum mechanics/molecular mechanics simulation of the ligand vibrations of the water-oxidizing MnCaO cluster in photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 12727-12732	11.5	41
81	Photosystem II Gold Nanoparticle Conjugate as a Nanodevice for the Development of Artificial Light-Driven Water-Splitting Systems. <i>Journal of Physical Chemistry Letters</i> , <b>2011</b> , 2, 2448-2452	6.4	40
80	Infrared Determination of the Protonation State of a Key Histidine Residue in the Photosynthetic Water Oxidizing Center. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 9364-9375	16.4	38
79	Structural Coupling of Extrinsic Proteins with the Oxygen-Evolving Center in Photosystem II. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 84	6.2	37
78	Criteria for determining the hydrogen-bond structures of a tyrosine side chain by fourier transform infrared spectroscopy: density functional theory analyses of model hydrogen-bonded complexes of p-cresol. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 13833-44	3.4	35
77	Herbicide effect on the hydrogen-bonding interaction of the primary quinone electron acceptor QA in photosystem II as studied by Fourier transform infrared spectroscopy. <i>Photosynthesis Research</i> , <b>2008</b> , 98, 159-67	3.7	34
76	Role of a Water Network around the Mn <sub>4</sub> CaO <sub>5</sub> Cluster in Photosynthetic Water Oxidation: A Fourier Transform Infrared Spectroscopy and Quantum Mechanics/Molecular Mechanics Calculation Study. <i>Biochemistry</i> , <b>2016</b> , 55, 597-607	3.2	33
75	D1-Asn-298 in photosystem II is involved in a hydrogen-bond network near the redox-active tyrosine Y for proton exit during water oxidation. <i>Journal of Biological Chemistry</i> , <b>2017</b> , 292, 20046-20057	5.4	32
74	Molecular Analysis by Vibrational Spectroscopy <b>2005</b> , 367-387		31
73	The conserved His-144 in the PsbP protein is important for the interaction between the PsbP N-terminus and the Cyt b559 subunit of photosystem II. <i>Journal of Biological Chemistry</i> , <b>2012</b> , 287, 26377-87	5.4	30

72	Fourier transform infrared spectrum of the secondary quinone electron acceptor Q(B) in photosystem II. <i>Biochemistry</i> , <b>2005</b> , 44, 11323-8	3.2	30
71	An FTIR study on the structure of the oxygen-evolving Mn-cluster of Photosystem II in different spin forms of the S(2) state. <i>Photosynthesis Research</i> , <b>2000</b> , 63, 47-57	3.7	30
70	Flash-induced FTIR difference spectroscopy shows no evidence for the structural coupling of bicarbonate to the oxygen-evolving Mn cluster in photosystem II. <i>Biochemistry</i> , <b>2008</b> , 47, 2760-5	3.2	29
69	XANES Spectroscopy for Monitoring Intermediate Reaction States of Cl-Depleted Mn Cluster in Photosynthetic Water Oxidation Enzyme. <i>Journal of the American Chemical Society</i> , <b>1995</b> , 117, 6386-6387	16.4	28
68	Interaction and inhibitory effect of ammonium cation in the oxygen evolving center of photosystem II. <i>Biochemistry</i> , <b>2011</b> , 50, 2506-14	3.2	27
67	Monitoring the reactions of photosynthetic water oxidation using infrared spectroscopy. <i>Biomedical Spectroscopy and Imaging</i> , <b>2013</b> , 2, 115-128	1.3	26
66	Drastic changes in the ligand structure of the oxygen-evolving Mn cluster upon Ca <sup>2+</sup> depletion as revealed by FTIR difference spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2007</b> , 1767, 535-40	4.6	26
65	Infrared Detection of a Proton Released from Tyrosine YD to the Bulk upon Its Photo-oxidation in Photosystem II. <i>Biochemistry</i> , <b>2015</b> , 54, 5045-53	3.2	25
64	Effect of charge distribution over a chlorophyll dimer on the redox potential of P680 in photosystem II as studied by density functional theory calculations. <i>Biochemistry</i> , <b>2008</b> , 47, 6289-91	3.2	25
63	Effects of hydrogen bonding interactions on the redox potential and molecular vibrations of plastoquinone as studied using density functional theory calculations. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 11864-76	3.6	24
62	Orientations of carboxylate groups coupled to the Mn cluster in the photosynthetic oxygen-evolving center as studied by polarized ATR-FTIR spectroscopy. <i>Biochemistry</i> , <b>2010</b> , 49, 3074-82	3.2	24
61	Structural coupling of a tyrosine side chain with the non-heme iron center in photosystem II as revealed by light-induced Fourier transform infrared difference spectroscopy. <i>Biochemistry</i> , <b>2009</b> , 48, 8994-9001	3.2	24
60	Water molecules coupled to the redox-active tyrosine Y(D) in photosystem II as detected by FTIR spectroscopy. <i>Biochemistry</i> , <b>2007</b> , 46, 14245-9	3.2	24
59	Determination of the miss probabilities of individual S-state transitions during photosynthetic water oxidation by monitoring electron flow in photosystem II using FTIR spectroscopy. <i>Biochemistry</i> , <b>2012</b> , 51, 6776-85	3.2	23
58	Structural coupling of an arginine side chain with the oxygen-evolving Mn <sub>4</sub> Ca cluster in photosystem II as revealed by isotope-edited Fourier transform infrared spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 3808-11	16.4	23
57	Hydrogen bond interactions of the pheophytin electron acceptor and its radical anion in photosystem II as revealed by Fourier transform infrared difference spectroscopy. <i>Biochemistry</i> , <b>2010</b> , 49, 493-501	3.2	22
56	Mechanism of Proton-Coupled Electron Transfer in the S-to-S Transition of Photosynthetic Water Oxidation As Revealed by Time-Resolved Infrared Spectroscopy. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 9460-9470	3.4	22
55	Molecular interactions of the quinone electron acceptors Q(A), Q(B), and Q(C) in photosystem II as studied by the fragment molecular orbital method. <i>Photosynthesis Research</i> , <b>2014</b> , 120, 113-23	3.7	21

54	The N-terminal sequence of the extrinsic PsbP protein modulates the redox potential of Cyt b559 in photosystem II. <i>Scientific Reports</i> , <b>2016</b> , 6, 21490	4.9	21
53	How does the QB site influence propagate to the QA site in photosystem II?. <i>Biochemistry</i> , <b>2011</b> , 50, 5436-42	4.2	19
52	Selective detection of the structural changes upon photoreactions of several redox cofactors in photosystem II by means of light-induced ATR-FTIR difference spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2007</b> , 66, 863-8	4.4	19
51	Effects of extrinsic proteins on the protein conformation of the oxygen-evolving center in cyanobacterial photosystem II as revealed by Fourier transform infrared spectroscopy. <i>Biochemistry</i> , <b>2015</b> , 54, 2022-31	3.2	17
50	Identification of the basic amino acid residues on the PsbP protein involved in the electrostatic interaction with photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2014</b> , 1837, 1447-53	4.6	17
49	Structural Dynamics of a Protein Domain Relevant to the Water-Oxidizing Complex in Photosystem II as Visualized by High-Speed Atomic Force Microscopy. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 5847-5857	3.4	16
48	A new system for detection of thermoluminescence and delayed luminescence from photosynthetic apparatus with precise temperature control. <i>Spectroscopy</i> , <b>2002</b> , 16, 89-94		16
47	Temperature dependence of the S1 ->S2 transition in the oxygen-evolving complex of photosystem II studied by FT-IR spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1993</b> , 1143, 333-336	4.6	16
46	Genetically introduced hydrogen bond interactions reveal an asymmetric charge distribution on the radical cation of the special-pair chlorophyll P680. <i>Journal of Biological Chemistry</i> , <b>2017</b> , 292, 7474-7486	5.4	15
45	Chapter 7:Photosynthetic O2 Evolution. <i>RSC Energy and Environment Series</i> , <b>2011</b> , 163-207	0.6	15
44	Long-range interaction between the Mn4CaO5 cluster and the non-heme iron center in photosystem II as revealed by FTIR spectroelectrochemistry. <i>Biochemistry</i> , <b>2014</b> , 53, 4914-23	3.2	14
43	Herbicide effect on the photodamage process of photosystem II: fourier transform infrared study. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2011</b> , 1807, 1214-20	4.6	14
42	Photooxidation pathway of chlorophyll Z in photosystem II as Studied by Fourier transform infrared spectroscopy. <i>Biochemistry</i> , <b>2006</b> , 45, 1938-45	3.2	14
41	Fourier Transform Infrared Analysis of the S-State Cycle of Water Oxidation in the Microcrystals of Photosystem II. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 2121-2126	6.4	13
40	Structural coupling of extrinsic proteins with the oxygen-evolving center in red algal photosystem II as revealed by light-induced FTIR difference spectroscopy. <i>Biochemistry</i> , <b>2013</b> , 52, 5705-7	3.2	13
39	Proton Release Process during the S-to-S Transition of Photosynthetic Water Oxidation As Revealed by the pH Dependence of Kinetics Monitored by Time-Resolved Infrared Spectroscopy. <i>Biochemistry</i> , <b>2019</b> , 58, 4276-4283	3.2	12
38	Role of the O4 Channel in Photosynthetic Water Oxidation as Revealed by Fourier Transform Infrared Difference and Time-Resolved Infrared Analysis of the D1-S169A Mutant. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 1470-1480	3.4	12
37	Structure-Based Modeling of Fluorescence Kinetics of Photosystem II: Relation between Its Dimeric Form and Photoregulation. <i>Journal of Physical Chemistry B</i> , <b>2016</b> , 120, 365-76	3.4	12

- 36 Mechanism of Methanol Inhibition of Photosynthetic Water Oxidation As Studied by Fourier Transform Infrared Difference and Time-Resolved Infrared Spectroscopies. *Biochemistry*, **2018**, 57, 4803-4815 3.3 12
- 35 Characteristic changes of function and structure of Photosystem II during strong-light photoinhibition under aerobic conditions. *Biochimica Et Biophysica Acta - Bioenergetics*, **1995**, 1229, 239-248 4.6 12
- 34 Molecular Structure of the S State with a = 5 Signal in the Oxygen Evolving Complex of Photosystem II. *Journal of Physical Chemistry B*, **2020**, 124, 5531-5537 3.4 11
- 33 Development of a novel cryogenic microscope with numerical aperture of 0.9 and its application to photosynthesis research. *Biochimica Et Biophysica Acta - Bioenergetics*, **2014**, 1837, 880-7 4.6 11
- 32 Fourier transform infrared spectroscopy of special pair bacteriochlorophylls in homodimeric reaction centers of heliobacteria and green sulfur bacteria. *Photosynthesis Research*, **2010**, 104, 321-31 3.7 11
- 31 Flash induced XANES spectroscopy for the Ca-depleted Mn-cluster in the photosynthetic O<sub>2</sub>-evolving enzyme. *FEBS Letters*, **1993**, 330, 28-30 3.8 11
- 30 Comparative Analysis of the Interaction of the Primary Quinone Q in Intact and Mn-Depleted Photosystem II Membranes Using Light-Induced ATR-FTIR Spectroscopy. *Biochemistry*, **2016**, 55, 6355-6358 3.3 9
- 29 Initial Mn<sup>2+</sup> binding site in photoassembly of the water-oxidizing Mn<sub>4</sub>CaO<sub>5</sub> cluster in photosystem II as studied by quantum mechanics/molecular mechanics calculations. *Chemical Physics Letters*, **2019**, 721, 62-67 2.5 8
- 28 Does the water-oxidizing MnCaO cluster regulate the redox potential of the primary quinone electron acceptor Q in photosystem II? A study by Fourier transform infrared spectroelectrochemistry. *Biochimica Et Biophysica Acta - Bioenergetics*, **2019**, 1860, 148082 4.6 7
- 27 Fourier transform infrared and mass spectrometry analyses of a site-directed mutant of D1-Asp170 as a ligand to the water-oxidizing MnCaO cluster in photosystem II. *Biochimica Et Biophysica Acta - Bioenergetics*, **2020**, 1861, 148086 4.6 7
- 26 Rapid-Scan Time-Resolved ATR-FTIR Study on the Photoassembly of the Water-Oxidizing MnCaO Cluster in Photosystem II. *Journal of Physical Chemistry B*, **2021**, 125, 4031-4045 3.4 7
- 25 FTIR spectroelectrochemistry combined with a light-induced difference technique: Application to the iron-quinone electron acceptor in photosystem II. *Biomedical Spectroscopy and Imaging*, **2016**, 5, 269-282 1.3 7
- 24 pH-Dependent Regulation of the Relaxation Rate of the Radical Anion of the Secondary Quinone Electron Acceptor Q in Photosystem II As Revealed by Fourier Transform Infrared Spectroscopy. *Biochemistry*, **2018**, 57, 2828-2836 3.2 6
- 23 Mutation-induced perturbation of the special pair P840 in the homodimeric reaction center in green sulfur bacteria. *Scientific Reports*, **2016**, 6, 19878 4.9 6
- 22 Fluorescence property of photosystem II protein complexes bound to a gold nanoparticle. *Faraday Discussions*, **2017**, 198, 121-134 3.6 6
- 21 Protonation State of a Key Histidine Ligand in the Iron-Quinone Complex of Photosystem II as Revealed by Light-Induced ATR-FTIR Spectroscopy. *Biochemistry*, **2020**, 59, 4336-4343 3.2 5
- 20 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, 105-14 3.7 5
- 19 Study of the intermediate S-states for water oxidation in the normal and Ca-depleted photosynthetic oxygen-evolving enzyme by means of flash-induced X-ray absorption near edge structure spectroscopy. *Biochemical Society Transactions*, **1994**, 22, 331-5 5.1 5

18	Proton and Water Transfer Pathways in the S <sub>1</sub> Transition of the Water-Oxidizing Complex in Photosystem II: Time-Resolved Infrared Analysis of the Effects of D1-N298A Mutation and NO Substitution. <i>Journal of Physical Chemistry B</i> , <b>2021</b> , 125, 6864-6873	3.4	5
17	Redox-state dependent blinking of single photosystem I trimers at around liquid-nitrogen temperature. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2019</b> , 1860, 30-40	4.6	5
16	Protonation structure of the photosynthetic water oxidizing complex in the S state as revealed by normal mode analysis using quantum mechanics/molecular mechanics calculations. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 24213-24225	3.6	4
15	ATR-FTIR Spectroelectrochemical Study on the Mechanism of the pH Dependence of the Redox Potential of the Non-Heme Iron in Photosystem II. <i>Biochemistry</i> , <b>2021</b> , 60, 2170-2178	3.2	4
14	Formation of the High-Spin S State Related to the Extrinsic Proteins in the Oxygen Evolving Complex of Photosystem II. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 8908-8913	6.4	3
13	Evaluation of photosynthetic activities in thylakoid membranes by means of Fourier transform infrared spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2018</b> , 1859, 129-136	4.6	3
12	Detection of the D0-D1 transition of $\beta$ -carotene radical cation photoinduced in photosystem II. <i>Photochemical and Photobiological Sciences</i> , <b>2009</b> , 8, 157-161	4.2	2
11	Ag-gold nanoparticle conjugate with photosystem I and photosystem II for development of a biohybrid water-splitting photocatalyst. <i>Biomedical Spectroscopy and Imaging</i> , <b>2020</b> , 9, 73-81	1.3	1
10	Redox properties and regulatory mechanism of the iron-quinone electron acceptor in photosystem II as revealed by FTIR spectroelectrochemistry.. <i>Photosynthesis Research</i> , <b>2022</b> , 1	3.7	1
9	Effects of Stromal and Lumenal Side Perturbations on the Redox Potential of the Primary Quinone Electron Acceptor Q in Photosystem II. <i>Biochemistry</i> , <b>2021</b> , 60, 3697-3706	3.2	1
8	Spectroscopic Analysis of the Redox Reactions of $\beta$ -Conjugated Cofactors in Photosynthetic Reaction Center <b>2015</b> , 675-694		1
7	FTIR Microspectroscopic Analysis of the Water Oxidation Reaction in a Single Photosystem II Microcrystal. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 121-127	3.4	1
6	1P-232 Molecular interaction of the primary quinone electron acceptor QA in photosystem II as studied by QA reconstitution and FTIR analysis(Photobiology:Photosynthesis, The 47th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2009</b> , 49, S98	0	
5	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). <i>Seibutsu Butsuri</i> , <b>2009</b> , 49, S98	0	
4	2P287 The molecular mechanism of ammonia inhibition of photo-synthetic oxygen evolution(The 48th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2010</b> , 50, S133	0	
3	3P269 FTIR analysis of the photoreactions of red/green light sensor protein AnPixJ(Photobiology: Vision & Photoreception,The 48th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2010</b> , 50, S192-S193	0	
2	1P276 Estimation of the efficiencies of individual S-state transitions during photosynthetic water oxidation using FTIR spectroscopy(Photobiology:Photosynthesis,The 48th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2010</b> , 50, S68	0	
1	Molecular Mechanism of Asymmetric Electron Transfer on the Electron Donor Side of Photosystem II. <i>Advances in Photosynthesis and Respiration</i> , <b>2021</b> , 323-339	1.7	



