

# Takumi Noguchi

## List of Publications by Year in descending order

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126  
papers

5,660  
citations

53751

45  
h-index

88593

70  
g-index

126  
all docs

126  
docs citations

126  
times ranked

2962  
citing authors

#	ARTICLE	IF	CITATIONS
1	Redox properties and regulatory mechanism of the iron-quinone electron acceptor in photosystem II as revealed by FTIR spectroelectrochemistry. <i>Photosynthesis Research</i> , 2022, , 1.	1.6	10
2	pH-Dependent Regulation of Electron Flow in Photosystem II by a Histidine Residue at the Stromal Surface. <i>Biochemistry</i> , 2022, 61, 1351-1362.	1.2	3
3	Molecular Mechanism of Asymmetric Electron Transfer on the Electron Donor Side of Photosystem II. <i>Advances in Photosynthesis and Respiration</i> , 2021, , 323-339.	1.0	0
4	Rapid-Scan Time-Resolved ATR-FTIR Study on the Photoassembly of the Water-Oxidizing Mn <sub>4</sub> CaO <sub>5</sub> Cluster in Photosystem II. <i>Journal of Physical Chemistry B</i> , 2021, 125, 4031-4045.	1.2	21
5	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> , 2021, 60, 2170-2178.	1.2	10
6	Proton and Water Transfer Pathways in the S <sub>2</sub> → S <sub>3</sub> Transition of the Water-Oxidizing Complex in Photosystem II: Time-Resolved Infrared Analysis of the Effects of D1-N298A Mutation and NO <sub>3</sub> <sup>-</sup> Substitution. <i>Journal of Physical Chemistry B</i> , 2021, 125, 6864-6873.	1.2	20
7	Effects of Stromal and Lumenal Side Perturbations on the Redox Potential of the Primary Quinone Electron Acceptor Q <sub>A</sub> in Photosystem II. <i>Biochemistry</i> , 2021, 60, 3697-3706.	1.2	8
8	FTIR Microspectroscopic Analysis of the Water Oxidation Reaction in a Single Photosystem II Microcrystal. <i>Journal of Physical Chemistry B</i> , 2020, 124, 121-127.	1.2	6
9	Fourier transform infrared and mass spectrometry analyses of a site-directed mutant of D1-Asp170 as a ligand to the water-oxidizing Mn <sub>4</sub> CaO <sub>5</sub> cluster in photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2020, 1861, 148086.	0.5	10
10	Protonation structure of the photosynthetic water oxidizing complex in the S <sub>0</sub> state as revealed by normal mode analysis using quantum mechanics/molecular mechanics calculations. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24213-24225.	1.3	13
11	Formation of the High-Spin S <sub>2</sub> State Related to the Extrinsic Proteins in the Oxygen Evolving Complex of Photosystem II. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 8908-8913.	2.1	10
12	Protonation State of a Key Histidine Ligand in the Iron-Quinone Complex of Photosystem II as Revealed by Light-Induced ATR-FTIR Spectroscopy. <i>Biochemistry</i> , 2020, 59, 4336-4343.	1.2	9
13	Molecular Structure of the S <sub>2</sub> State with a <i>g</i> = 5 Signal in the Oxygen Evolving Complex of Photosystem II. <i>Journal of Physical Chemistry B</i> , 2020, 124, 5531-5537.	1.2	17
14	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> , 2020, 124, 5847-5857.	1.2	22
15	A gold nanoparticle conjugate with photosystem II and photosystem I for development of a biohybrid water-splitting photocatalyst. <i>Biomedical Spectroscopy and Imaging</i> , 2020, 9, 73-81.	1.2	2
16	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> , 2020, 124, 1470-1480.	1.2	18
17	Does the water-oxidizing Mn <sub>4</sub> CaO <sub>5</sub> cluster regulate the redox potential of the primary quinone electron acceptor QA in photosystem II? A study by Fourier transform infrared spectroelectrochemistry. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 148082.	0.5	11
18	Proton Release Process during the S <sub>2</sub> -to-S <sub>3</sub> Transition of Photosynthetic Water Oxidation As Revealed by the pH Dependence of Kinetics Monitored by Time-Resolved Infrared Spectroscopy. <i>Biochemistry</i> , 2019, 58, 4276-4283.	1.2	19

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19	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. <i>Chemical Physics Letters</i> , 2019, 721, 62-67.	1.2	9
20	Redox-state dependent blinking of single photosystem I trimers at around liquid-nitrogen temperature. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 30-40.	0.5	8
21	pH-Dependent Regulation of the Relaxation Rate of the Radical Anion of the Secondary Quinone Electron Acceptor QB in Photosystem II As Revealed by Fourier Transform Infrared Spectroscopy. <i>Biochemistry</i> , 2018, 57, 2828-2836.	1.2	7
22	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> , 2018, 9, 2121-2126.	2.1	19
23	Evaluation of photosynthetic activities in thylakoid membranes by means of Fourier transform infrared spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 129-136.	0.5	3
24	Mechanism of Proton-Coupled Electron Transfer in the S <sub>0</sub> -to-S <sub>1</sub> Transition of Photosynthetic Water Oxidation As Revealed by Time-Resolved Infrared Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2018, 122, 9460-9470.	1.2	38
25	Mechanism of Methanol Inhibition of Photosynthetic Water Oxidation As Studied by Fourier Transform Infrared Difference and Time-Resolved Infrared Spectroscopies. <i>Biochemistry</i> , 2018, 57, 4803-4815.	1.2	14
26	Monitoring the Reaction Process During the S <sub>2</sub> → S <sub>3</sub> Transition in Photosynthetic Water Oxidation Using Time-Resolved Infrared Spectroscopy. <i>Journal of the American Chemical Society</i> , 2017, 139, 2022-2029.	6.6	57
27	Light-induced structural changes and the site of O=O bond formation in PSII caught by XFEL. <i>Nature</i> , 2017, 543, 131-135.	13.7	515
28	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> , 2017, 139, 9364-9375.	6.6	58
29	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> , 2017, 292, 7474-7486.	1.6	28
30	D1-Asn-298 in photosystem II is involved in a hydrogen-bond network near the redox-active tyrosine YZ for proton exit during water oxidation. <i>Journal of Biological Chemistry</i> , 2017, 292, 20046-20057.	1.6	42
31	Fluorescence property of photosystem II protein complexes bound to a gold nanoparticle. <i>Faraday Discussions</i> , 2017, 198, 121-134.	1.6	8
32	FTIR spectroelectrochemistry combined with a light-induced difference technique: Application to the iron-quinone electron acceptor in photosystem II. <i>Biomedical Spectroscopy and Imaging</i> , 2016, 5, 269-282.	1.2	8
33	Structural Coupling of Extrinsic Proteins with the Oxygen-Evolving Center in Photosystem II. <i>Frontiers in Plant Science</i> , 2016, 7, 84.	1.7	57
34	The N-terminal sequence of the extrinsic PsbP protein modulates the redox potential of Cyt b559 in photosystem II. <i>Scientific Reports</i> , 2016, 6, 21490.	1.6	24
35	Quantum mechanics/molecular mechanics simulation of the ligand vibrations of the water-oxidizing Mn <sub>4</sub> CaO <sub>5</sub> cluster in photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12727-12732.	3.3	50
36	Comparative Analysis of the Interaction of the Primary Quinone QA in Intact and Mn-Depleted Photosystem II Membranes Using Light-Induced ATR-FTIR Spectroscopy. <i>Biochemistry</i> , 2016, 55, 6355-6358.	1.2	12

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37	Mutation-induced perturbation of the special pair P840 in the homodimeric reaction center in green sulfur bacteria. <i>Scientific Reports</i> , 2016, 6, 19878.	1.6	7
38	Redox potential of the terminal quinone electron acceptor Q <sub>B</sub> 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> , 2016, 113, 620-625.	3.3	66
39	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> , 2016, 55, 597-607.	1.2	39
40	Structure-Based Modeling of Fluorescence Kinetics of Photosystem II: Relation between Its Dimeric Form and Photoregulation. <i>Journal of Physical Chemistry B</i> , 2016, 120, 365-376.	1.2	16
41	Modified molecular interactions of the pheophytin and plastoquinone electron acceptors in photosystem II of chlorophyll d-containing <i>Acaryochloris marina</i> as revealed by FTIR spectroscopy. <i>Photosynthesis Research</i> , 2015, 125, 105-114.	1.6	7
42	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> , 2015, 54, 2022-2031.	1.2	19
43	Infrared Detection of a Proton Released from Tyrosine Y <sub>D</sub> to the Bulk upon Its Photo-oxidation in Photosystem II. <i>Biochemistry</i> , 2015, 54, 5045-5053.	1.2	31
44	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> , 2015, 1847, 35-45.	0.5	88
45	Spectroscopic Analysis of the Redox Reactions of $\beta$ -Conjugated Cofactors in Photosynthetic Reaction Center. , 2015, , 675-694.		1
46	Development of a novel cryogenic microscope with numerical aperture of 0.9 and its application to photosynthesis research. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 880-887.	0.5	14
47	Molecular interactions of the quinone electron acceptors QA, QB, and QC in photosystem II as studied by the fragment molecular orbital method. <i>Photosynthesis Research</i> , 2014, 120, 113-123.	1.6	24
48	Fourier Transform Infrared Detection of a Polarizable Proton Trapped between Photooxidized Tyrosine Y <sub>Z</sub> and a Coupled Histidine in Photosystem II: Relevance to the Proton Transfer Mechanism of Water Oxidation. <i>Biochemistry</i> , 2014, 53, 3131-3144.	1.2	71
49	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> , 2014, 1837, 1447-1453.	0.5	21
50	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> , 2014, 16, 11864.	1.3	35
51	Long-Range Interaction between the Mn <sub>4</sub> CaO <sub>5</sub> Cluster and the Non-heme Iron Center in Photosystem II as Revealed by FTIR Spectroelectrochemistry. <i>Biochemistry</i> , 2014, 53, 4914-4923.	1.2	17
52	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> , 2013, 52, 5705-5707.	1.2	16
53	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> , 2013, 52, 4748-4757.	1.2	58
54	Monitoring the reactions of photosynthetic water oxidation using infrared spectroscopy. <i>Biomedical Spectroscopy and Imaging</i> , 2013, 2, 115-128.	1.2	26

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55	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> , 2012, 287, 26377-26387.	1.6	36
56	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> , 2012, 51, 6776-6785.	1.2	28
57	Time-Resolved Infrared Detection of the Proton and Protein Dynamics during Photosynthetic Oxygen Evolution. <i>Biochemistry</i> , 2012, 51, 3205-3214.	1.2	79
58	The PsbQ protein stabilizes the functional binding of the PsbP protein to photosystem II in higher plants. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 1346-1351.	0.5	48
59	Structural Coupling of an Arginine Side Chain with the Oxygen-Evolving Mn4Ca Cluster in Photosystem II As Revealed by Isotope-Edited Fourier Transform Infrared Spectroscopy. <i>Journal of the American Chemical Society</i> , 2011, 133, 3808-3811.	6.6	24
60	Interaction and Inhibitory Effect of Ammonium Cation in the Oxygen Evolving Center of Photosystem II. <i>Biochemistry</i> , 2011, 50, 2506-2514.	1.2	30
61	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> , 2011, 2, 2448-2452.	2.1	52
62	How Does the Q <sub>B</sub> Site Influence Propagate to the Q <sub>A</sub> Site in Photosystem II?. <i>Biochemistry</i> , 2011, 50, 5436-5442.	1.2	20
63	Herbicide effect on the photodamage process of photosystem II: Fourier transform infrared study. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2011, 1807, 1214-1220.	0.5	14
64	Photosynthetic O <sub>2</sub> Evolution. <i>RSC Energy and Environment Series</i> , 2011, , 163-207.	0.2	17
65	2P287 The molecular mechanism of ammonia inhibition of photo-synthetic oxygen evolution(The 48th) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 .	0.0	0
66	3P269 FTIR analysis of the photoreactions of red/green light sensor protein AnPixJ(Photobiology:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 . Butsuri, 2010, 50, S192-S193.	0.0	0
67	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) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 .	0.0	0
68	Fourier transform infrared spectroscopy of special pair bacteriochlorophylls in homodimeric reaction centers of heliobacteria and green sulfur bacteria. <i>Photosynthesis Research</i> , 2010, 104, 321-331.	1.6	13
69	Structures and Binding Sites of Phenolic Herbicides in the Q <sub>B</sub> Pocket of Photosystem II. <i>Biochemistry</i> , 2010, 49, 5445-5454.	1.2	47
70	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> , 2010, 49, 493-501.	1.2	26
71	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> , 2010, 49, 3074-3082.	1.2	29
72	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) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 .	0.0	0

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73	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> , 2009, 48, 8994-9001.	1.2	28
74	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> , 2009, 48, 6095-6103.	1.2	49
75	FTIR Evidence That the PsbP Extrinsic Protein Induces Protein Conformational Changes around the Oxygen-Evolving Mn Cluster in Photosystem II. <i>Biochemistry</i> , 2009, 48, 6318-6325.	1.2	56
76	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> , 2009, 131, 7849-7857.	6.6	111
77	Detection of the D0 <sup>+</sup> D1 transition of $\beta$ -carotene radical cation photoinduced in photosystem II. <i>Photochemical and Photobiological Sciences</i> , 2009, 8, 157-161.	1.6	2
78	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> , 2009, 49, S98.	0.0	0
79	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> , 2008, 98, 159-167.	1.6	40
80	Fourier transform infrared analysis of the photosynthetic oxygen-evolving center. <i>Coordination Chemistry Reviews</i> , 2008, 252, 336-346.	9.5	97
81	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> , 2008, 1777, 331-342.	0.5	69
82	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> , 2008, 47, 11024-11030.	1.2	73
83	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> , 2008, 112, 6725-6731.	1.2	62
84	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> , 2008, 47, 6289-6291.	1.2	28
85	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> , 2008, 47, 2760-2765.	1.2	32
86	FTIR detection of water reactions in the oxygen-evolving centre of photosystem II. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2008, 363, 1189-1195.	1.8	130
87	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> , 2007, 104, 7283-7288.	3.3	123
88	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> , 2007, 111, 13833-13844.	1.2	42
89	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> , 2007, 46, 4390-4397.	1.2	65
90	Water Molecules Coupled to the Redox-Active Tyrosine YD in Photosystem II as Detected by FTIR Spectroscopy. <i>Biochemistry</i> , 2007, 46, 14245-14249.	1.2	24

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91	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> , 2007, 1767, 535-540.	0.5	28
92	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> , 2007, 66, 863-868.	2.0	21
93	Light-induced FTIR difference spectroscopy as a powerful tool toward understanding the molecular mechanism of photosynthetic oxygen evolution. <i>Photosynthesis Research</i> , 2007, 91, 59-69.	1.6	81
94	Photooxidation Pathway of Chlorophyll Z in Photosystem II as Studied by Fourier Transform Infrared Spectroscopy. <i>Biochemistry</i> , 2006, 45, 1938-1945.	1.2	16
95	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> , 2006, 45, 13454-13464.	1.2	53
96	Density Functional Theory Calculations on the Dielectric Constant Dependence of the Oxidation Potential of Chlorophyll:A Implication for the High Potential of P680 in Photosystem II. <i>Biochemistry</i> , 2005, 44, 8865-8872.	1.2	46
97	Molecular Analysis by Vibrational Spectroscopy. , 2005, , 367-387.		49
98	Fourier Transform Infrared Spectrum of the Secondary Quinone Electron Acceptor QB in Photosystem II. <i>Biochemistry</i> , 2005, 44, 11323-11328.	1.2	35
99	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> , 2005, 44, 1708-1718.	1.2	55
100	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> , 2004, 43, 13549-13563.	1.2	73
101	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> , 2003, 42, 6035-6042.	1.2	130
102	Protonation Structures of Cys-Sulfenic and Cys-Sulfenic Acids in the Photosensitive Nitrile Hydratase Revealed by Fourier Transform Infrared Spectroscopy. <i>Biochemistry</i> , 2003, 42, 11642-11650.	1.2	65
103	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> , 2002, 41, 2322-2330.	1.2	157
104	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> , 2002, 106, 3377-3390.	1.1	81
105	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> , 2002, 43, 1112-1116.	1.5	67
106	A new system for detection of thermoluminescence and delayed luminescence from photosynthetic apparatus with precise temperature control. <i>Spectroscopy</i> , 2002, 16, 89-94.	0.8	19
107	FTIR Detection of Water Reactions during the Flash-Induced S-State Cycle of the Photosynthetic Water-Oxidizing Complex. <i>Biochemistry</i> , 2002, 41, 15706-15712.	1.2	109
108	Triplet Formation on a Monomeric Chlorophyll in the Photosystem II Reaction Center As Studied by Time-Resolved Infrared Spectroscopy. <i>Biochemistry</i> , 2001, 40, 2176-2185.	1.2	59

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109	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> , 2001, 40, 1497-1502.	1.2	93
110	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> , 2000, 63, 47-57.	1.6	31
111	Structure of an Active Water Molecule in the Water-Oxidizing Complex of Photosystem II As Studied by FTIR Spectroscopy. <i>Biochemistry</i> , 2000, 39, 10943-10949.	1.2	102
112	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> , 2000, 104, 4253-4265.	1.2	171
113	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> , 1999, 38, 399-403.	1.2	70
114	Structure of a Histidine Ligand in the Photosynthetic Oxygen-Evolving Complex As Studied by Light-Induced Fourier Transform Infrared Difference Spectroscopy. <i>Biochemistry</i> , 1999, 38, 10187-10195.	1.2	126
115	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> , 1998, 37, 13614-13625.	1.2	90
116	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> , 1997, 36, 14705-14711.	1.2	105
117	Identification of Fourier Transform Infrared Signals from the Non-Heme Iron in Photosystem III. <i>Journal of Biochemistry</i> , 1995, 118, 9-12.	0.9	49
118	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> , 1995, 117, 6386-6387.	6.6	30
119	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> , 1995, 1228, 189-200.	0.5	136
120	Characteristic changes of function and structure of Photosystem II during strong-light photoinhibition under aerobic conditions. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1995, 1229, 239-248.	0.5	13
121	Photosensitive nitrile hydratase intrinsically possesses nitric oxide bound to the non-heme iron center: evidence by Fourier transform infrared spectroscopy. <i>FEBS Letters</i> , 1995, 358, 9-12.	1.3	88
122	Fourier transform infrared spectrum of the radical cation of $\beta$ -carotene photoinduced in photosystem II. <i>FEBS Letters</i> , 1994, 356, 179-182.	1.3	67
123	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. <i>Biochemical Society Transactions</i> , 1994, 22, 331-335.	1.6	5
124	Flash induced XANES spectroscopy for the Ca-depleted Mn-cluster in the photosynthetic O <sub>2</sub> -evolving enzyme. <i>FEBS Letters</i> , 1993, 330, 28-30.	1.3	13
125	Temperature dependence of the S <sub>1</sub> $\rightarrow$ S <sub>2</sub> transition in the oxygen-evolving complex of photosystem II studied by FT-IR spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1993, 1143, 333-336.	0.5	18
126	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> , 1992, 31, 5953-5956.	1.2	93