Takumi Noguchi

List of Publications by Year
in descending order

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	Light-induced structural changes and the site of O=O bond formation in PSII caught by XFEL. Nature, 2017, 543, 131-135.	13.7	515
2	Vibrational Spectra and Ab Initio DFT Calculations of 4-Methylimidazole and Its Different Protonation Forms:Â Infrared and Raman Markers of the Protonation State of a Histidine Side Chain. Journal of Physical Chemistry B, 2000, 104, 4253-4265.	1.2	171
3	Flash-Induced FTIR Difference Spectra of the Water Oxidizing Complex in Moderately Hydrated Photosystem II Core Films:Â Effect of Hydration Extent on S-State Transitionsâ€. Biochemistry, 2002, 41, 2322-2330.	1.2	157
4	Direct detection of a carboxylate bridge between Mn and Ca2+ in the photosynthetic oxygen-evolving center by means of Fourier transform infrared spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 1995, 1228, 189-200.	0.5	136
5	Analysis of Flash-Induced FTIR Difference Spectra of the S-State Cycle in the Photosynthetic Water-Oxidizing Complex by Uniform15N and13C Isotope Labelingâ€. Biochemistry, 2003, 42, 6035-6042.	1.2	130
6	FTIR detection of water reactions in the oxygen-evolving centre of photosystem II. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 1189-1195.	1.8	130
7	Structure of a Histidine Ligand in the Photosynthetic Oxygen-Evolving Complex As Studied by Light-Induced Fourier Transform Infrared Difference Spectroscopyâ€. Biochemistry, 1999, 38, 10187-10195.	1.2	126
8	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.	3.3	123
9	Monitoring Proton Release during Photosynthetic Water Oxidation in Photosystem II by Means of Isotope-Edited Infrared Spectroscopy. Journal of the American Chemical Society, 2009, 131, 7849-7857.	6.6	111
10	FTIR Detection of Water Reactions during the Flash-Induced S-State Cycle of the Photosynthetic Water-Oxidizing Complexâ€. Biochemistry, 2002, 41, 15706-15712.	1.2	109
11	Structural Coupling between the Oxygen-Evolving Mn Cluster and a Tyrosine Residue in Photosystem II As Revealed by Fourier Transform Infrared Spectroscopyâ€. Biochemistry, 1997, 36, 14705-14711.	1.2	105
12	Structure of an Active Water Molecule in the Water-Oxidizing Complex of Photosystem II As Studied by FTIR Spectroscopy. Biochemistry, 2000, 39, 10943-10949.	1.2	102
13	Fourier transform infrared analysis of the photosynthetic oxygen-evolving center. Coordination Chemistry Reviews, 2008, 252, 336-346.	9.5	97
14	Detection of structural changes upon S1-to-S2 transition in the oxygen-evolving manganese cluster in photosystem II by light-induced Fourier transform infrared difference spectroscopy. Biochemistry, 1992, 31, 5953-5956.	1.2	93
15	Flash-Induced Fourier Transform Infrared Detection of the Structural Changes during the S-State Cycle of the Oxygen-Evolving Complex in Photosystem II. Biochemistry, 2001, 40, 1497-1502.	1.2	93
16	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.	1.2	90
17	Photosensitive nitrile hydratase intrinsically possesses nitric oxide bound to the non-heme iron center: evidence by Fourier transform infrared spectroscopy. FEBS Letters, 1995, 358, 9-12.	1.3	88
18	Fourier transform infrared difference and time-resolved infrared detection of the electron and proton transfer dynamics in photosynthetic water oxidation. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 35-45.	0.5	88

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19	Ab Initio Density Functional Theory Calculations and Vibrational Analysis of Zinc-Bound 4-Methylimidazole as a Model of a Histidine Ligand in Metalloenzymes. Journal of Physical Chemistry A, 2002, 106, 3377-3390.	1.1	81
20	Light-induced FTIR difference spectroscopy as a powerful tool toward understanding the molecular mechanism of photosynthetic oxygen evolution. Photosynthesis Research, 2007, 91, 59-69.	1.6	81
21	Time-Resolved Infrared Detection of the Proton and Protein Dynamics during Photosynthetic Oxygen Evolution. Biochemistry, 2012, 51, 3205-3214.	1.2	79
22	Site-Directed Mutagenesis ofThermosynechococcus elongatusPhotosystem II:Â The O2-Evolving Enzyme Lacking the Redox-Active Tyrosine D. Biochemistry, 2004, 43, 13549-13563.	1.2	73
23	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. Biochemistry, 2008, 47, 11024-11030.	1.2	73
24	Fourier Transform Infrared Detection of a Polarizable Proton Trapped between Photooxidized Tyrosine Y_Z and a Coupled Histidine in Photosystem II: Relevance to the Proton Transfer Mechanism of Water Oxidation. Biochemistry, 2014, 53, 3131-3144.	1.2	71
25	Hydrogen Bonding Interaction between the Primary Quinone Acceptor QAand a Histidine Side Chain in Photosystem II As Revealed by Fourier Transform Infrared Spectroscopyâ€. Biochemistry, 1999, 38, 399-403.	1.2	70
26	Influence of Histidine-198 of the D1 subunit on the properties of the primary electron donor, P680, of photosystem II in Thermosynechococcus elongatus. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 331-342.	0.5	69
27	Fourier transform infrared spectrum of the radical cation of Î²-carotene photoinduced in photosystem II. FEBS Letters, 1994, 356, 179-182.	1.3	67
28	Dual Role of Triplet Localization on the Accessory Chlorophyll in the Photosystem II Reaction Center: Photoprotection and Photodamage of the D1 Protein. Plant and Cell Physiology, 2002, 43, 1112-1116.	1.5	67
29	Redox potential of the terminal quinone electron acceptor Q_Bin photosystem II reveals the mechanism of electron transfer regulation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 620-625.	3.3	66
30	Protonation Structures of Cys-Sulfinic and Cys-Sulfenic Acids in the Photosensitive Nitrile Hydratase Revealed by Fourier Transform Infrared Spectroscopyâ€. Biochemistry, 2003, 42, 11642-11650.	1.2	65
31	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.	1.2	65
32	Correlation between the Hydrogen-Bond Structures and the Câ•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. Journal of Physical Chemistry B, 2008, 112, 6725-6731.	1.2	62
33	Triplet Formation on a Monomeric Chlorophyll in the Photosystem II Reaction Center As Studied by Time-Resolved Infrared Spectroscopy. Biochemistry, 2001, 40, 2176-2185.	1.2	59
34	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. Biochemistry, 2013, 52, 4748-4757.	1.2	58
35	Infrared Determination of the Protonation State of a Key Histidine Residue in the Photosynthetic Water Oxidizing Center. Journal of the American Chemical Society, 2017, 139, 9364-9375.	6.6	58
36	Structural Coupling of Extrinsic Proteins with the Oxygen-Evolving Center in Photosystem II. Frontiers in Plant Science, 2016, 7, 84.	1.7	57

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37	Monitoring the Reaction Process During the S₂ â†’ S₃ Transition in Photosynthetic Water Oxidation Using Time-Resolved Infrared Spectroscopy. Journal of the American Chemical Society, 2017, 139, 2022-2029.	6.6	57
38	FTIR Evidence That the PsbP Extrinsic Protein Induces Protein Conformational Changes around the Oxygen-Evolving Mn Cluster in Photosystem II. Biochemistry, 2009, 48, 6318-6325.	1.2	56
39	pH Dependence of the Flash-Induced S-State Transitions in the Oxygen-Evolving Center of Photosystem II from Thermosynechoccocus elongatus as Revealed by Fourier Transform Infrared Spectroscopy. Biochemistry, 2005, 44, 1708-1718.	1.2	55
40	Structural Perturbation of the Carboxylate Ligands to the Manganese Cluster upon Ca2+/Sr2+ Exchange in the S-State Cycle of Photosynthetic Oxygen Evolution As Studied by Flash-Induced FTIR Difference Spectroscopy. Biochemistry, 2006, 45, 13454-13464.	1.2	53
41	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.	2.1	52
42	Quantum mechanics/molecular mechanics simulation of the ligand vibrations of the water-oxidizing Mn ₄ CaO ₅ cluster in photosystem II. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12727-12732.	3.3	50
43	Identification of Fourier Transform Infrared Signals from the Non-Heme Iron in Photosystem II1. Journal of Biochemistry, 1995, 118, 9-12.	0.9	49
44	Molecular Analysis by Vibrational Spectroscopy. , 2005, , 367-387.		49
45	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.	1.2	49
46	The PsbQ protein stabilizes the functional binding of the PsbP protein to photosystem II in higher plants. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1346-1351.	0.5	48
47	Structures and Binding Sites of Phenolic Herbicides in the Q_B Pocket of Photosystem II. Biochemistry, 2010, 49, 5445-5454.	1.2	47
48	Density Functional Theory Calculations on the Dielectric Constant Dependence of the Oxidation Potential of Chlorophyll:Â Implication for the High Potential of P680 in Photosystem IIâ€. Biochemistry, 2005, 44, 8865-8872.	1.2	46
49	Criteria for Determining the Hydrogen-Bond Structures of a Tyrosine Side Chain by Fourier Transform Infrared Spectroscopy:â€‰ Density Functional Theory Analyses of Model Hydrogen-Bonded Complexes of p-Cresol. Journal of Physical Chemistry B, 2007, 111, 13833-13844.	1.2	42
50	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. Journal of Biological Chemistry, 2017, 292, 20046-20057.	1.6	42
51	Herbicide effect on the hydrogen-bonding interaction of the primary quinone electron acceptor QA in photosystem II as studied by Fourier transform infrared spectroscopy. Photosynthesis Research, 2008, 98, 159-167.	1.6	40
52	Role of a Water Network around the Mn₄CaO₅ Cluster in Photosynthetic Water Oxidation: A Fourier Transform Infrared Spectroscopy and Quantum Mechanics/Molecular Mechanics Calculation Study. Biochemistry, 2016, 55, 597-607.	1.2	39
53	Mechanism of Proton-Coupled Electron Transfer in the S₀-to-S₁ Transition of Photosynthetic Water Oxidation As Revealed by Time-Resolved Infrared Spectroscopy. Journal of Physical Chemistry B, 2018, 122, 9460-9470.	1.2	38
54	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. Journal of Biological Chemistry, 2012, 287, 26377-26387.	1.6	36

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55	Fourier Transform Infrared Spectrum of the Secondary Quinone Electron Acceptor QB in Photosystem II. Biochemistry, 2005, 44, 11323-11328.	1.2	35
56	Effects of hydrogen bonding interactions on the redox potential and molecular vibrations of plastoquinone as studied using density functional theory calculations. Physical Chemistry Chemical Physics, 2014, 16, 11864.	1.3	35
57	Flash-Induced FTIR Difference Spectroscopy Shows No Evidence for the Structural Coupling of Bicarbonate to the Oxygen-Evolving Mn Cluster in Photosystem II. Biochemistry, 2008, 47, 2760-2765.	1.2	32
58	An FTIR study on the structure of the oxygen-evolving Mn-cluster of Photosystem II in different spin forms of the S(2) state. Photosynthesis Research, 2000, 63, 47-57.	1.6	31
59	Infrared Detection of a Proton Released from Tyrosine Y_D to the Bulk upon Its Photo-oxidation in Photosystem II. Biochemistry, 2015, 54, 5045-5053.	1.2	31
60	XANES Spectroscopy for Monitoring Intermediate Reaction States of Cl--Depleted Mn Cluster in Photosynthetic Water Oxidation Enzyme. Journal of the American Chemical Society, 1995, 117, 6386-6387.	6.6	30
61	Interaction and Inhibitory Effect of Ammonium Cation in the Oxygen Evolving Center of Photosytem II. Biochemistry, 2011, 50, 2506-2514.	1.2	30
62	Orientations of Carboxylate Groups Coupled to the Mn Cluster in the Photosynthetic Oxygen-Evolving Center As Studied by Polarized ATR-FTIR Spectroscopy. Biochemistry, 2010, 49, 3074-3082.	1.2	29
63	Drastic changes in the ligand structure of the oxygen-evolving Mn cluster upon Ca2+ depletion as revealed by FTIR difference spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 535-540.	0.5	28
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. Biochemistry, 2008, 47, 6289-6291.	1.2	28
65	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. Biochemistry, 2009, 48, 8994-9001.	1.2	28
66	Determination of the Miss Probabilities of Individual S-State Transitions during Photosynthetic Water Oxidation by Monitoring Electron Flow in Photosystem II Using FTIR Spectroscopy. Biochemistry, 2012, 51, 6776-6785.	1.2	28
67	Genetically introduced hydrogen bond interactions reveal an asymmetric charge distribution on the radical cation of the special-pair chlorophyll P680. Journal of Biological Chemistry, 2017, 292, 7474-7486.	1.6	28
68	Hydrogen Bond Interactions of the Pheophytin Electron Acceptor and Its Radical Anion in Photosystem II As Revealed by Fourier Transform Infrared Difference Spectroscopy. Biochemistry, 2010, 49, 493-501.	1.2	26
69	Monitoring the reactions of photosynthetic water oxidation using infrared spectroscopy. Biomedical Spectroscopy and Imaging, 2013, 2, 115-128.	1.2	26
70	Water Molecules Coupled to the Redox-Active Tyrosine YD in Photosystem II as Detected by FTIR Spectroscopy. Biochemistry, 2007, 46, 14245-14249.	1.2	24
71	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. Journal of the American Chemical Society, 2011, 133, 3808-3811.	6.6	24
72	Molecular interactions of the quinone electron acceptors QA, QB, and QC in photosystem II as studied by the fragment molecular orbital method. Photosynthesis Research, 2014, 120, 113-123.	1.6	24

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73	The N-terminal sequence of the extrinsic PsbP protein modulates the redox potential of Cyt b559 in photosystem II. Scientific Reports, 2016, 6, 21490.	1.6	24
74	Structural Dynamics of a Protein Domain Relevant to the Water-Oxidizing Complex in Photosystem II as Visualized by High-Speed Atomic Force Microscopy. Journal of Physical Chemistry B, 2020, 124, 5847-5857.	1.2	22
75	Selective detection of the structural changes upon photoreactions of several redox cofactors in photosystem II by means of light-induced ATR-FTIR difference spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2007, 66, 863-868.	2.0	21
76	Identification of the basic amino acid residues on the PsbP protein involved in the electrostatic interaction with photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1447-1453.	0.5	21
77	Rapid-Scan Time-Resolved ATR-FTIR Study on the Photoassembly of the Water-Oxidizing Mn₄CaO₅ Cluster in Photosystem II. Journal of Physical Chemistry B, 2021, 125, 4031-4045.	1.2	21
78	How Does the Q_B Site Influence Propagate to the Q_A Site in Photosystem II?. Biochemistry, 2011, 50, 5436-5442.	1.2	20
79	Proton and Water Transfer Pathways in the S₂ â†’ S₃ Transition of the Water-Oxidizing Complex in Photosystem II: Time-Resolved Infrared Analysis of the Effects of D1-N298A Mutation and NO₃^{â€“} Substitution. Journal of Physical Chemistry B, 2021, 125, 6864-6873.	1.2	20
80	A new system for detection of thermoluminescence and delayed luminescence from photosynthetic apparatus with precise temperature control. Spectroscopy, 2002, 16, 89-94.	0.8	19
81	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.	1.2	19
82	Fourier Transform Infrared Analysis of the S-State Cycle of Water Oxidation in the Microcrystals of Photosystem II. Journal of Physical Chemistry Letters, 2018, 9, 2121-2126.	2.1	19
83	Proton Release Process during the S₂-to-S₃ Transition of Photosynthetic Water Oxidation As Revealed by the pH Dependence of Kinetics Monitored by Time-Resolved Infrared Spectroscopy. Biochemistry, 2019, 58, 4276-4283.	1.2	19
84	Temperature dependence of the S1 â†’ S2 transition in the oxygen-evolving complex of photosystem II studied by FT-IR spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 1993, 1143, 333-336.	0.5	18
85	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. Journal of Physical Chemistry B, 2020, 124, 1470-1480.	1.2	18
86	Long-Range Interaction between the Mn4CaO5Cluster and the Non-heme Iron Center in Photosystem II as Revealed by FTIR Spectroelectrochemistry. Biochemistry, 2014, 53, 4914-4923.	1.2	17
87	Molecular Structure of the S₂ State with a <i>g</i> = 5 Signal in the Oxygen Evolving Complex of Photosystem II. Journal of Physical Chemistry B, 2020, 124, 5531-5537.	1.2	17
88	Photosynthetic O2 Evolution. RSC Energy and Environment Series, 2011, , 163-207.	0.2	17
89	Photooxidation Pathway of Chlorophyll Z in Photosystem II as Studied by Fourier Transform Infrared Spectroscopyâ€. Biochemistry, 2006, 45, 1938-1945.	1.2	16
90	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.	1.2	16

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91	Structure-Based Modeling of Fluorescence Kinetics of PhotosystemÂII: Relation between Its Dimeric Form and Photoregulation. Journal of Physical Chemistry B, 2016, 120, 365-376.	1.2	16
92	Herbicide effect on the photodamage process of photosystem II: Fourier transform infrared study. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 1214-1220.	0.5	14
93	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, 880-887.	0.5	14
94	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.	1.2	14
95	Flash induced XANES spectroscopy for the Ca-depleted Mn-cluster in the photosynthetic O2 -evolving enzyme. FEBS Letters, 1993, 330, 28-30.	1.3	13
96	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.	0.5	13
97	Fourier transform infrared spectroscopy of special pair bacteriochlorophylls in homodimeric reaction centers of heliobacteria and green sulfur bacteria. Photosynthesis Research, 2010, 104, 321-331.	1.6	13
98	Protonation structure of the photosynthetic water oxidizing complex in the S₀ state as revealed by normal mode analysis using quantum mechanics/molecular mechanics calculations. Physical Chemistry Chemical Physics, 2020, 22, 24213-24225.	1.3	13
99	Comparative Analysis of the Interaction of the Primary Quinone QA in Intact and Mn-Depleted Photosystem II Membranes Using Light-Induced ATR-FTIR Spectroscopy. Biochemistry, 2016, 55, 6355-6358.	1.2	12
100	Does the water-oxidizing Mn4CaO5 cluster regulate the redox potential of the primary quinone electron acceptor QA in photosystem II? A study by Fourier transform infrared spectroelectrochemistry. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 148082.	0.5	11
101	Fourier transform infrared and mass spectrometry analyses of a site-directed mutant of D1-Asp170 as a ligand to the water-oxidizing Mn4CaO5 cluster in photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148086.	0.5	10
102	Formation of the High-Spin S₂ State Related to the Extrinsic Proteins in the Oxygen Evolving Complex of Photosystem II. Journal of Physical Chemistry Letters, 2020, 11, 8908-8913.	2.1	10
103	ATR-FTIR Spectroelectrochemical Study on the Mechanism of the pH Dependence of the Redox Potential of the Non-Heme Iron in Photosystem II. Biochemistry, 2021, 60, 2170-2178.	1.2	10
104	Redox properties and regulatory mechanism of the iron-quinone electron acceptor in photosystem II as revealed by FTIR spectroelectrochemistry. Photosynthesis Research, 2022, , 1.	1.6	10
105	Initial Mn2+ binding site in photoassembly of the water-oxidizing Mn4CaO5 cluster in photosystem II as studied by quantum mechanics/molecular mechanics calculations. Chemical Physics Letters, 2019, 721, 62-67.	1.2	9
106	Protonation State of a Key Histidine Ligand in the Ironâ€“Quinone Complex of Photosystem II as Revealed by Light-Induced ATR-FTIR Spectroscopy. Biochemistry, 2020, 59, 4336-4343.	1.2	9
107	FTIR spectroelectrochemistry combined with a light-induced difference technique: Application to the iron-quinone electron acceptor in photosystemÂII. Biomedical Spectroscopy and Imaging, 2016, 5, 269-282.	1.2	8
108	Fluorescence property of photosystem II protein complexes bound to a gold nanoparticle. Faraday Discussions, 2017, 198, 121-134.	1.6	8

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109	Redox-state dependent blinking of single photosystem I trimers at around liquid-nitrogen temperature. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 30-40.	0.5	8
110	Effects of Stromal and Lumenal Side Perturbations on the Redox Potential of the Primary Quinone Electron Acceptor Q_A in Photosystem II. Biochemistry, 2021, 60, 3697-3706.	1.2	8
111	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.	1.6	7
112	Mutation-induced perturbation of the special pair P840 in the homodimeric reaction center in green sulfur bacteria. Scientific Reports, 2016, 6, 19878.	1.6	7
113	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. Biochemistry, 2018, 57, 2828-2836.	1.2	7
114	FTIR Microspectroscopic Analysis of the Water Oxidation Reaction in a Single Photosystem II Microcrystal. Journal of Physical Chemistry B, 2020, 124, 121-127.	1.2	6
115	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, 331-335.	1.6	5
116	Evaluation of photosynthetic activities in thylakoid membranes by means of Fourier transform infrared spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 129-136.	0.5	3
117	pH-Dependent Regulation of Electron Flow in Photosystem II by a Histidine Residue at the Stromal Surface. Biochemistry, 2022, 61, 1351-1362.	1.2	3
118	Detection of the D0â†'D1transition of Î²-carotene radical cation photoinduced in photosystem II. Photochemical and Photobiological Sciences, 2009, 8, 157-161.	1.6	2
119	AÂgold nanoparticle conjugate with photosystemÂI and photosystemÂII for development of a biohybrid water-splitting photocatalyst. Biomedical Spectroscopy and Imaging, 2020, 9, 73-81.	1.2	2
120	Spectroscopic Analysis of the Redox Reactions of Ï€-Conjugated Cofactors in Photosynthetic Reaction Center. , 2015, , 675-694.		1
121	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 ETQq1 1 0.784314 rgBT /O	0.0	0
122	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.	0.0	0
123	2P287 The molecular mechanism of ammonia inhibition of photo-synthetic oxygen evolution(The 48th) Tj ETQq1 1 0.784314 rgBT /O	0.0	0
124	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
125	1P276 Estimation of the efficiencies of individual S-state transitions during photosynthetic water oxidation using FTIR spectroscopy(Photobioiogy:Photosynthesis,The 48th Annual Meeting of the) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	0
126	Molecular Mechanism of Asymmetric Electron Transfer on the Electron Donor Side of Photosystem II. Advances in Photosynthesis and Respiration, 2021, , 323-339.	1.0	0