Yutaka Shibata

List of Publications by Year
in descending order

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68 papers	2,250 citations	236925 25 h-index	223800 46 g-index
71 all docs	71 docs citations	71 times ranked	1965 citing authors

#	Article	IF	Citations
1	Spectral properties of single light-harvesting complexes in bacterial photosynthesis. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2010, 11, 15-24.	11.6	171
2	Dynamics and Mechanisms of Ultrafast Fluorescence Quenching Reactions of Flavin Chromophores in Protein Nanospace. Journal of Physical Chemistry B, 2000, 104, 10667-10677.	2.6	133
3	Biochemical and Functional Characterization of BLUF-Type Flavin-Binding Proteins of Two Species of Cyanobacteria. Journal of Biochemistry, 2005, 137, 741-750.	1.7	128
4	Internal Conversion and Vibronic Relaxation from Higher Excited Electronic State of Porphyrins:Â Femtosecond Fluorescence Dynamics Studies. Journal of Physical Chemistry B, 2000, 104, 4001-4004.	2.6	120
5	Photosystem II Does Not Possess a Simple Excitation Energy Funnel: Time-Resolved Fluorescence Spectroscopy Meets Theory. Journal of the American Chemical Society, 2013, 135, 6903-6914.	13.7	107
6	First Unequivocal Observation of the Whole Bell-Shaped Energy Gap Law in Intramolecular Charge Separation from S2Excited State of Directly Linked Porphyrinâ^'Imide Dyads and Its Solvent-Polarity Dependencies. Journal of the American Chemical Society, 2001, 123, 12422-12423.	13.7	99
7	Excited-state dynamics of rhodopsin probed by femtosecond fluorescence spectroscopy. Chemical Physics Letters, 2001, 334, 271-276.	2.6	94
8	Ultrafast Charge Separation from the S2Excited State of Directly Linked Porphyrinâ^'Imide Dyads:Â First Unequivocal Observation of the Whole Bell-Shaped Energy-Gap Law and Its Solvent Dependencies. Journal of Physical Chemistry A, 2002, 106, 12191-12201.	2.5	87
9	Primary Intermediate in the Photocycle of a Blue-Light Sensory BLUF FAD-Protein, Tll0078, ofThermosynechococcus elongatusBP-1â€. Biochemistry, 2005, 44, 5149-5158.	2.5	75
10	Rhodopsin Emission in Real Time:Â A New Aspect of the Primary Event in Vision. Journal of the American Chemical Society, 1998, 120, 9706-9707.	13.7	67
11	Effects of Modification of Protein Nanospace Structure and Change of Temperature on the Femtosecond to Picosecond Fluorescence Dynamics of Photoactive Yellow Protein. Journal of Physical Chemistry B, 2000, 104, 5191-5199.	2.6	65
12	Environmental Effects on the Femtosecondâ^'Picosecond Fluorescence Dynamics of Photoactive Yellow Protein:Â Chromophores in Aqueous Solutions and in Protein Nanospaces Modified by Site-Directed Mutagenesis. Journal of Physical Chemistry B, 1998, 102, 7695-7698.	2.6	61
13	Fate Determination of the Flavin Photoreceptions in the Cyanobacterial Blue Light Receptor TePixD (Tll0078). Journal of Molecular Biology, 2006, 363, 10-18.	4.2	60
14	Mechanism of strong quenching of photosystem II chlorophyll fluorescence under drought stress in a lichen, Physciella melanchla, studied by subpicosecond fluorescence spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 331-338.	1.0	51
15	Nanoscale Organization of Chlorophyllain Mesoporous Silica:Â Efficient Energy Transfer and Stabilized Charge Separation as in Natural Photosynthesis. Journal of Physical Chemistry B, 2004, 108, 13683-13687.	2.6	50
16	Direct Counting of Submicrometer-Sized Photosynthetic Apparatus Dispersed in Medium at Cryogenic Temperature by Confocal Laser Fluorescence Microscopy:â€‰ Estimation of the Number of Bacteriochlorophyll c in Single Light-Harvesting Antenna Complexes Chlorosomes of Green Photosynthetic Bacteria. Journal of Physical Chemistry B, 2007, 111, 12605-12609.	2.6	50
17	Ultrafast photoinduced reaction dynamics of photoactive yellow protein (PYP): observation of coherent oscillations in the femtosecond fluorescence decay dynamics. Chemical Physics Letters, 2002, 352, 220-225.	2.6	48
18	Function of Membrane Protein in Silica Nanopores:â€‰ Incorporation of Photosynthetic Light-Harvesting Protein LH2 into FSM. Journal of Physical Chemistry B, 2006, 110, 1114-1120.	2.6	48

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19	A new fluorescence band F689 in photosystem II revealed by picosecond analysis at 4â€“77ÂK: Function of two terminal energy sinks F689 and F695 in PS II. Biochimica Et Biophysica Acta - Bioenergetics, 2006, 1757, 1657-1668.	1.0	46
20	Two types of fucoxanthin-chlorophyll-binding proteins I tightly bound to the photosystem I core complex in marine centric diatoms. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 529-539.	1.0	37
21	Femtosecond fluorescence spectroscopy and near-field spectroscopy of water-soluble tetra(4-sulfonatophenyl)porphyrin and its J-aggregate. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 178, 192-200.	3.9	35
22	Arabitol Provided by Lichenous Fungi Enhances Ability to Dissipate Excess Light Energy in a Symbiotic Green Alga under Desiccation. Plant and Cell Physiology, 2013, 54, 1316-1325.	3.1	33
23	Low-Temperature Fluorescence from Single Chlorosomes, Photosynthetic Antenna Complexes of Green Filamentous and Sulfur Bacteria. Biophysical Journal, 2006, 91, 3787-3796.	0.5	32
24	Polarized Fluorescence of Aggregated Bacteriochlorophyllcand Baseplate Bacteriochlorophyllain Single Chlorosomes Isolated fromChloroflexus aurantiacusâ€. Biochemistry, 2007, 46, 7062-7068.	2.5	31
25	Kinetically Distinct Three Red Chlorophylls in Photosystem I of Thermosynechococcus elongatus Revealed by Femtosecond Time-Resolved Fluorescence Spectroscopy at 15 K. Journal of Physical Chemistry B, 2010, 114, 2954-2963.	2.6	28
26	Real-Time Observation of Conformational Fluctuations in Zn-Substituted Myoglobin by Time-Resolved Transient Hole-Burning Spectroscopy. Biophysical Journal, 1998, 75, 521-527.	0.5	26
27	Anisotropic distribution of emitting transition dipoles in chlorosome from Chlorobium tepidum: fluorescence polarization anisotropy study of single chlorosomes. Photosynthesis Research, 2009, 100, 67-78.	2.9	26
28	Solvent Effects on Conformational Dynamics of Zn-Substituted Myoglobin Observed by Time-Resolved Hole-Burning Spectroscopyâ€. Biochemistry, 1999, 38, 1789-1801.	2.5	25
29	Intramolecular Excitation Energy Transfer from Visible-light Absorbing Chlorophyll Derivatives to a Near-infrared-light Emitting Boron Dipyrromethene Moiety. Chemistry Letters, 2010, 39, 953-955.	1.3	25
30	Inâ€…Vivo Energy Transfer from Bacteriochlorophyllâ€…c, d, e, or f to Bacteriochlorophyllâ€…a in Wildâ€Type and Mutant Cells of the Green Sulfur Bacterium Chlorobaculum limnaeum. ChemPhotoChem, 2018, 2, 190-195.	3.0	23
31	Structural relaxations in H2â€substituted myoglobin observed by temperatureâ€cycling hole burning. Journal of Chemical Physics, 1996, 104, 4396-4405.	3.0	21
32	Acceleration of Electron-Transfer-Induced Fluorescence Quenching upon Conversion to the Signaling State in the Blue-Light Receptor, TePixD, from Thermosynechococcus elongatus. Journal of Physical Chemistry B, 2009, 113, 8192-8198.	2.6	21
33	Intensity Borrowing via Excitonic Couplings among Soret and Q_y Transitions of Bacteriochlorophylls in the Pigment Aggregates of Chlorosomes, the Light-Harvesting Antennae of Green Sulfur Bacteria. Biochemistry, 2010, 49, 7504-7515.	2.5	21
34	Covalently linked zinc chlorophyll dimers as a model of a chlorophyllous pair in photosynthetic reaction centers. Photochemical and Photobiological Sciences, 2008, 7, 1231.	2.9	20
35	Multiple dissipation components of excess light energy in dry lichen revealed by ultrafast fluorescence study at 5ÂK. Photosynthesis Research, 2011, 110, 39-48.	2.9	20
36	Supramolecular energy transfer from photoexcited chlorosomal zinc porphyrin self-aggregates to a chlorin or bacteriochlorin monomer as models of main light-harvesting antenna systems in green photosynthetic bacteria. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 5218-5221.	2.2	20

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37	Linearly polarized light absorption spectra of chlorosomes, light-harvesting antennas of photosynthetic green sulfur bacteria. Chemical Physics Letters, 2010, 484, 333-337.	2.6	18
38	Energy and electron transfer in the photosynthetic reaction center complex of Acidiphilium rubrum containing Zn-bacteriochlorophyll a studied by femtosecond up-conversion spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 22-30.	1.0	17
39	Two-Level Systems in Myoglobin Probed by Non-Lorentzian Hole Broadening in a Temperature-Cycling Experiment. Physical Review Letters, 1995, 74, 4349-4352.	7.8	16
40	Structure-Based Modeling of Fluorescence Kinetics of PhotosystemÂII: Relation between Its Dimeric Form and Photoregulation. Journal of Physical Chemistry B, 2016, 120, 365-376.	2.6	16
41	Conformational Fluctuation of Native-Like and Molten-Globule-Like Cytochrome c Observed by Time-Resolved Hole Burningâ€. Biochemistry, 1999, 38, 1802-1810.	2.5	14
42	Shallow Sink in an Antenna Pigment System of Photosystem I of a Marine Centric Diatom, Chaetoceros gracilis, Revealed by Ultrafast Fluorescence Spectroscopy at 17 K. Journal of Physical Chemistry B, 2010, 114, 9031-9038.	2.6	14
43	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.	1.0	14
44	Excitation energy transfer in individual light-harvesting chlorosome from green photosynthetic bacterium Chloroflexus aurantiacus at cryogenic temperature. Chemical Physics Letters, 2005, 409, 34-37.	2.6	12
45	Highly Enhanced Emission of Visible Light from Coreâ€“Dualâ€Shellâ€Type Hybridized Nanoparticles. Particle and Particle Systems Characterization, 2017, 34, 1700258.	2.3	11
46	Determination of Qx- and Qy- absorption bands of Zn-porphyrin derivatives contained in proteins by hole-burning spectroscopy. Chemical Physics Letters, 1998, 284, 115-120.	2.6	10
47	Time-Resolved Hole-Burning Study on Myoglobin: Fluctuation of Restricted Water within Distal Pocket. Biophysical Journal, 2001, 80, 1013-1023.	0.5	9
48	Excited-state dynamics of normal and doubly N-confused type hexaphyrin derivatives studied by time-resolved fluorescence measurements. Chemical Physics Letters, 2007, 443, 274-279.	2.6	9
49	Development of a Multicolor Line-Focus Microscope for Rapid Acquisitions of Excitation Spectra. Biophysical Journal, 2020, 118, 36-43.	0.5	9
50	High-Speed Excitation-Spectral Microscopy Uncovers In Situ Rearrangement of Light-Harvesting Apparatus in Chlamydomonas during State Transitions at Submicron Precision. Plant and Cell Physiology, 2021, 62, 872-882.	3.1	9
51	Scrambled Selfâ€Assembly of Bacteriochlorophylls c and e in Aqueous Triton Xâ€100 Micelles. Photochemistry and Photobiology, 2014, 90, 552-559.	2.5	8
52	Fluorescence property of photosystem II protein complexes bound to a gold nanoparticle. Faraday Discussions, 2017, 198, 121-134.	3.2	8
53	Imaging of intracellular rearrangement of photosynthetic proteins in Chlamydomonas cells upon state transition. Journal of Photochemistry and Photobiology B: Biology, 2018, 185, 111-116.	3.8	8
54	Redox-state dependent blinking of single photosystem I trimers at around liquid-nitrogen temperature. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 30-40.	1.0	8

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55	Enhanced Fluorescence Emission and Magnetic Alignment Control of Biphasic Functionalized Composite Janus Particles. Particle and Particle Systems Characterization, 2019, 36, 1800311.	2.3	6
56	Study of cell-differentiation and assembly of photosynthetic proteins during greening of etiolated Zea mays leaves using confocal fluorescence microspectroscopy at liquid-nitrogen temperature. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 520-528.	1.0	5
57	Red shift in the spectrum of a chlorophyll species is essential for the drought-induced dissipation of excess light energy in a poikilohydric moss, Bryum argenteum. Photosynthesis Research, 2018, 136, 229-243.	2.9	5
58	Simultaneous Time Resolution of the Emission Spectra of Fluorescent Proteins and Zooxanthellar Chlorophyll in Reef-building Corals Â¶â€. Photochemistry and Photobiology, 2007, 77, 515-523.	2.5	3
59	Temperature-Dependent Energy Gap of the Primary Charge Separation in Photosystem I: Study of Delayed Fluorescence at 77â^'268 K. Journal of Physical Chemistry B, 2008, 112, 6695-6702.	2.6	3
60	Recent advances in single-molecule spectroscopy studies on light-harvesting processes in oxygenic photosynthesis. Biophysics and Physicobiology, 2022, 19, n/a.	1.0	3
61	Intramolecular energy relaxation and competing electron transfer in porphyrin-acceptor supermolecule systems. Journal of Luminescence, 2000, 87-89, 757-759.	3.1	2
62	Fabrication of Au-Conjugated Polymer Hybridized Nanoparticles and Their Optical Properties. E-Journal of Surface Science and Nanotechnology, 2018, 16, 436-439.	0.4	2
63	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
64	Lichens Assist the Drought-Induced Fluorescence Quenching of Their Photobiont Green Algae Through Arabitol. Advanced Topics in Science and Technology in China, 2013, , 514-517.	0.1	2
65	Identification of assembly precursors to photosystems emitting fluorescence at 683â€¯nm and 687â€¯nm by cryogenic fluorescence microspectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 148090.	1.0	1
66	Fluctuating Energy-Transfer Pathway of Photosynthetic Antenna Systems Observed by Single-Molecule Fluorescence Spectroscopy. Seibutsu Butsuri, 2021, 61, 023-026.	0.1	1
67	3P-270 Sharp zero-phonon lines in fluorescence spectra of single antenna complexes, chlorosomes at cryogenic temperature(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S169.	0.1	0
68	Janus Particles: Enhanced Fluorescence Emission and Magnetic Alignment Control of Biphasic Functionalized Composite Janus Particles (Part. Part. Syst. Charact. 1/2019). Particle and Particle Systems Characterization, 2019, 36, 1970002.	2.3	0