

Christine Kirmaier

List of Publications by Year in descending order

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papers

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citations

101384

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91
all docs

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docs citations

91
times ranked

2698
citing authors

#	ARTICLE	IF	CITATIONS
1	Hidden vibronic and excitonic structure and vibronic coherence transfer in the bacterial reaction center. <i>Science Advances</i> , 2022, 8, eabk0953.	4.7	20
2	Structures of <i>Rhodospseudomonas palustris</i> RC-LH1 complexes with open or closed quinone channels. <i>Science Advances</i> , 2021, 7, .	4.7	38
3	A perspective on the redox properties of tetrapyrrole macrocycles. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 19130-19140.	1.3	15
4	In Situ, Protein-Mediated Generation of a Photochemically Active Chlorophyll Analogue in a Mutant Bacterial Photosynthetic Reaction Center. <i>Biochemistry</i> , 2021, 60, 1260-1275.	1.2	1
5	Conjugated-linker dependence of the photophysical properties and electronic structure of chlorin dyads. <i>Journal of Porphyrins and Phthalocyanines</i> , 2021, 25, 639-663.	0.4	4
6	Electronic Structure and Excited-State Dynamics of Rylene-Tetrapyrrole Panchromatic Absorbers. <i>Journal of Physical Chemistry A</i> , 2021, 125, 7900-7919.	1.1	7
7	Photosynthetic reaction center variants made via genetic code expansion show Tyr at M210 tunes the initial electron transfer mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	6
8	Switching sides—Reengineered primary charge separation in the bacterial photosynthetic reaction center. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 865-871.	3.3	11
9	Photophysical Properties and Electronic Structure of Zinc(II) Porphyrins Bearing <i>meso</i> -Phenyl Substituents: Zinc Porphine to Zinc Tetraphenylporphyrin (ZnTPP). <i>Journal of Physical Chemistry A</i> , 2020, 124, 7776-7794.	1.1	28
10	Engineering of B800 bacteriochlorophyll binding site specificity in the <i>Rhodobacter sphaeroides</i> LH2 antenna. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 209-223.	0.5	36
11	Annulated bacteriochlorins for near-infrared photophysical studies. <i>New Journal of Chemistry</i> , 2019, 43, 7209-7232.	1.4	16
12	New molecular design for blue BODIPYs. <i>New Journal of Chemistry</i> , 2019, 43, 7233-7242.	1.4	7
13	Consequences of saturation mutagenesis of the protein ligand to the B-side monomeric bacteriochlorophyll in reaction centers from <i>Rhodobacter capsulatus</i> . <i>Photosynthesis Research</i> , 2019, 141, 273-290.	1.6	5
14	Expanding Covalent Attachment Sites of Nonnative Chromophores to Encompass the C-terminal Hydrophilic Domain in Biohybrid Light-Harvesting Architectures. <i>ChemPhotoChem</i> , 2018, 2, 300-313.	1.5	2
15	Primary processes in the bacterial reaction center probed by two-dimensional electronic spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3563-3568.	3.3	53
16	Origin of Panchromaticity in Multichromophore-Tetrapyrrole Arrays. <i>Journal of Physical Chemistry A</i> , 2018, 122, 7181-7201.	1.1	20
17	Synthesis of arrays containing porphyrin, chlorin, and perylene-imide constituents for panchromatic light-harvesting and charge separation. <i>RSC Advances</i> , 2018, 8, 23854-23874.	1.7	22
18	Electronic Interactions in the Bacterial Reaction Center Revealed by Two-Color 2D Electronic Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5219-5225.	2.1	19

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19	Augmenting light coverage for photosynthesis through YFP-enhanced charge separation at the Rhodobacter sphaeroides reaction centre. Nature Communications, 2017, 8, 13972.	5.8	40
20	Manipulating the Energetics and Rates of Electron Transfer in <i>Rhodobacter capsulatus</i> Reaction Centers with Asymmetric Pigment Content. Journal of Physical Chemistry B, 2017, 121, 6989-7004.	1.2	15
21	Species differences in unlocking B-side electron transfer in bacterial reaction centers. FEBS Letters, 2016, 590, 2515-2526.	1.3	8
22	Photophysical Properties and Electronic Structure of Porphyrins Bearing Zero to Four <i>meso</i> -Phenyl Substituents: New Insights into Seemingly Well Understood Tetrapyrroles. Journal of Physical Chemistry A, 2016, 120, 9719-9731.	1.1	75
23	Integration of Cyanine, Merocyanine and Styryl Dye Motifs with Synthetic Bacteriochlorins. Photochemistry and Photobiology, 2016, 92, 111-125.	1.3	7
24	Effects of Strong Electronic Coupling in Chlorin and Bacteriochlorin Dyads. Journal of Physical Chemistry A, 2016, 120, 379-395.	1.1	28
25	Optimizing multi-step B-side charge separation in photosynthetic reaction centers from Rhodobacter capsulatus. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 150-159.	0.5	8
26	Synthetic bacteriochlorins bearing polar motifs (carboxylate, phosphonate, ammonium and a short) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 2015, 39, 5694-5714.	1.4	25
27	Photophysical Properties and Electronic Structure of Chlorin-Imides: Bridging the Gap between Chlorins and Bacteriochlorins. Journal of Physical Chemistry B, 2015, 119, 7503-7515.	1.2	27
28	Effects of Substituents on Synthetic Analogs of Chlorophylls. Part 4: How Formyl Group Location Dictates the Spectral Properties of Chlorophyllsb,dandf. Photochemistry and Photobiology, 2015, 91, 331-342.	1.3	20
29	Extending the Short and Long Wavelength Limits of Bacteriochlorin Near-Infrared Absorption via Dioxo- and Bisimide-Functionalization. Journal of Physical Chemistry B, 2015, 119, 4382-4395.	1.2	55
30	Enhanced Light-Harvesting Capacity by Micellar Assembly of Free Accessory Chromophores and LH1-like Antennas. Photochemistry and Photobiology, 2014, 90, 1264-1276.	1.3	11
31	Probing Electronic Communication for Efficient Light-Harvesting Functionality: Dyads Containing a Common Perylene and a Porphyrin, Chlorin, or Bacteriochlorin. Journal of Physical Chemistry B, 2014, 118, 1630-1647.	1.2	22
32	Amphiphilic, hydrophilic, or hydrophobic synthetic bacteriochlorins in biohybrid light-harvesting architectures: consideration of molecular designs. Photosynthesis Research, 2014, 122, 187-202.	1.6	11
33	Panchromatic absorbers for solar light-harvesting. Chemical Communications, 2014, 50, 14512-14515.	2.2	34
34	High yield of secondary B-side electron transfer in mutant Rhodobacter capsulatus reaction centers. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1892-1903.	0.5	10
35	Versatile design of biohybrid light-harvesting architectures to tune location, density, and spectral coverage of attached synthetic chromophores for enhanced energy capture. Photosynthesis Research, 2014, 121, 35-48.	1.6	32
36	Putative Hydrogen Bond to Tyrosine M208 in Photosynthetic Reaction Centers from <i>Rhodobacter capsulatus</i> Significantly Slows Primary Charge Separation. Journal of Physical Chemistry B, 2014, 118, 6721-6732.	1.2	13

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37	Distinct Photophysical and Electronic Characteristics of Strongly Coupled Dyads Containing a Perylene Accessory Pigment and a Porphyrin, Chlorin, or Bacteriochlorin. <i>Journal of Physical Chemistry B</i> , 2013, 117, 9288-9304.	1.2	36
38	Palette of lipophilic bioconjugatable bacteriochlorins for construction of biohybrid light-harvesting architectures. <i>Chemical Science</i> , 2013, 4, 2036.	3.7	47
39	Integration of multiple chromophores with native photosynthetic antennas to enhance solar energy capture and delivery. <i>Chemical Science</i> , 2013, 4, 3924.	3.7	37
40	Photophysical Properties and Electronic Structure of Bacteriochlorin- <i>Chalcones</i> with Extended Near-Infrared Absorption. <i>Photochemistry and Photobiology</i> , 2013, 89, 586-604.	1.3	21
41	Amphiphilic chlorins and bacteriochlorins in micellar environments. Molecular design, de novo synthesis, and photophysical properties. <i>Chemical Science</i> , 2013, 4, 3459.	3.7	32
42	High Throughput Engineering to Revitalize a Vestigial Electron Transfer Pathway in Bacterial Photosynthetic Reaction Centers. <i>Journal of Biological Chemistry</i> , 2012, 287, 8507-8514.	1.6	11
43	Biohybrid Photosynthetic Antenna Complexes for Enhanced Light-Harvesting. <i>Journal of the American Chemical Society</i> , 2012, 134, 4589-4599.	6.6	87
44	Photochemistry of a Bacterial Photosynthetic Reaction Center Missing the Initial Bacteriochlorophyll Electron Acceptor. <i>Journal of Physical Chemistry B</i> , 2012, 116, 9971-9982.	1.2	17
45	Effects of Substituents on Synthetic Analogs of Chlorophylls. Part 3: The Distinctive Impact of Auxochromes at the 7- and 3-Positions. <i>Photochemistry and Photobiology</i> , 2012, 88, 651-674.	1.3	34
46	De novo synthesis and properties of analogues of the self-assembling chlorosomal bacteriochlorophylls. <i>New Journal of Chemistry</i> , 2011, 35, 2671.	1.4	17
47	Photophysical Properties and Electronic Structure of Stable, Tunable Synthetic Bacteriochlorins: Extending the Features of Native Photosynthetic Pigments. <i>Journal of Physical Chemistry B</i> , 2011, 115, 10801-10816.	1.2	93
48	Excited-State Photodynamics of Perylene-Porphyrin Dyads. 5. Tuning Light-Harvesting Characteristics via Perylene Substituents, Connection Motif, and Three-Dimensional Architecture. <i>Journal of Physical Chemistry B</i> , 2010, 114, 14249-14264.	1.2	23
49	Trapping the P ⁺ B _L ⁺ Initial Intermediate State of Charge Separation in Photosynthetic Reaction Centers from <i>Rhodobacter capsulatus</i> . <i>Biochemistry</i> , 2009, 48, 2571-2573.	1.2	17
50	Low-Temperature Studies of Electron Transfer to the M Side of YFH Reaction Centers from <i>Rhodobacter capsulatus</i> . <i>Journal of Physical Chemistry B</i> , 2009, 113, 1132-1142.	1.2	10
51	Temperature Dependence of Electron Transfer to the M-Side Bacteriopheophytin in <i>Rhodobacter capsulatus</i> Reaction Centers. <i>Journal of Physical Chemistry B</i> , 2008, 112, 5487-5499.	1.2	29
52	Determination of the Rate and Yield of B-side Quinone Reduction in <i>Rhodobacter capsulatus</i> Reaction Centers. <i>Biochemistry</i> , 2006, 45, 7314-7322.	1.2	20
53	High Yield of M-Side Electron Transfer in Mutants of <i>Rhodobacter capsulatus</i> Reaction Centers Lacking the L-Side Bacteriopheophytin. <i>Biochemistry</i> , 2006, 45, 3845-3851.	1.2	54
54	Structural Control of the Photodynamics of Boron-Dipyrrin Complexes. <i>Journal of Physical Chemistry B</i> , 2005, 109, 20433-20443.	1.2	375

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55	Probing the Contribution of Electronic Coupling to the Directionality of Electron Transfer in Photosynthetic Reaction Centers. <i>Journal of Physical Chemistry B</i> , 2005, 109, 24160-24172.	1.2	24
56	B-Side Electron Transfer To Form P+HB- in Reaction Centers from the F(L181)Y/Y(M208)F Mutant of <i>Rhodobacter capsulatus</i> . <i>Journal of Physical Chemistry B</i> , 2004, 108, 11827-11832.	1.2	24
57	Excited-State Energy-Transfer Dynamics in Self-Assembled Triads Composed of Two Porphyrins and an Intervening Bis(dipyrrinato)metal Complex. <i>Inorganic Chemistry</i> , 2003, 42, 6629-6647.	1.9	214
58	Detergent effects on primary charge separation in wild-type and mutant <i>Rhodobacter capsulatus</i> reaction centers. <i>Chemical Physics</i> , 2003, 294, 305-318.	0.9	22
59	Quinone Reduction via Secondary B-Branch Electron Transfer in Mutant Bacterial Reaction Centers. <i>Biochemistry</i> , 2003, 42, 1718-1730.	1.2	71
60	B-Side Charge Separation in Bacterial Photosynthetic Reaction Centers: A Nanosecond Time Scale Electron Transfer from HB-to QB. <i>Biochemistry</i> , 2003, 42, 2016-2024.	1.2	41
61	Probing M-Branch Electron Transfer and Cofactor Environment in the Bacterial Photosynthetic Reaction Center by Addition of a Hydrogen Bond to the M-Side Bacteriopheophytin. <i>Journal of Physical Chemistry B</i> , 2002, 106, 495-503.	1.2	36
62	Synthesis and properties of weakly coupled dendrimeric multiporphyrin light-harvesting arrays and hole-storage reservoirs. Electronic supplementary information (ESI) available: a description of multiphoton effects at high excitation intensities; the complete Experimental section including descriptions of the syntheses of the arrays; SEC data, ¹ H NMR spectra, and mass spectra for all new porphyrins and multiporphyrin arrays; a description of exploratory studies in the purification of Zn20Fb; data from a compar. <i>Journal of Materials Chemistry</i> , 2002, 12, 65-80.	6.7	90
63	Comparison of M-Side Electron Transfer in <i>Rb. sphaeroides</i> and <i>Rb. capsulatus</i> Reaction Centers. <i>Journal of Physical Chemistry B</i> , 2002, 106, 1799-1808.	1.2	58
64	Design and synthesis of light-harvesting rods for intrinsic rectification of the migration of excited-state energy and ground-state holes. Electronic supplementary information (ESI) available: ¹ H and ¹³ C NMR spectra for all new porphyrin precursors; ¹ H NMR and LD-MS spectra for all new porphyrins and porphyrin arrays (LD-MS only for deprotected arrays 12 and 14, and pentad 18); analytical SEC data for all porphyrin arrays. See http://www.rsc.org/suppdata/jm/b1/b108168c/ . <i>Journal of Materials Chemistry</i> , 2002, 12, 1530-1552.	6.7	43
65	Manipulating the Direction of Electron Transfer in the Bacterial Reaction Center by Swapping Phe for Tyr Near BChlM(L181) and Tyr for Phe Near BChlL(M208). <i>Biochemistry</i> , 2001, 40, 12132-12139.	1.2	70
66	Primary Events in Photosynthetic Reaction Centers with Multiple Mutations near the Photoactive Electron Carriers. <i>Journal of Physical Chemistry B</i> , 2001, 105, 5575-5584.	1.2	39
67	Relationship between altered structure and photochemistry in mutant reaction centers in which bacteriochlorophyll replaces the photoactive bacteriopheophytin. , 1999, 5, 346-357.		5
68	M-Side Electron Transfer in Reaction Center Mutants with a Lysine near the Nonphotoactive Bacteriochlorophyll. <i>Biochemistry</i> , 1999, 38, 11516-11530.	1.2	88
69	Resonance Raman Characterization of Reaction Centers with an Asp Residue near the Photoactive Bacteriopheophytin. <i>Biochemistry</i> , 1998, 37, 6394-6401.	1.2	14
70	Effects of Asp Residues Near the L-Side Pigments in Bacterial Reaction Centers. <i>Biochemistry</i> , 1996, 35, 15418-15427.	1.2	60
71	Influence of Electronic Asymmetry on the Spectroscopic and Photodynamic Properties of the Primary Electron Donor in the Photosynthetic Reaction Center. <i>The Journal of Physical Chemistry</i> , 1996, 100, 17696-17707.	2.9	50
72	Free-energy dependence of the rate of electron transfer to the primary quinone in beta-type reaction centers. <i>Chemical Physics</i> , 1995, 197, 225-237.	0.9	22

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73	The Nature and Dynamics of the Charge-Separated Intermediate in Reaction Centers in which Bacteriochlorophyll Replaces the Photoactive Bacteriopheophytin. 1. Spectral Characterization of the Transient State. <i>The Journal of Physical Chemistry</i> , 1995, 99, 8903-8909.	2.9	41
74	The Nature and Dynamics of the Charge-Separated Intermediate in Reaction Centers in which Bacteriochlorophyll Replaces the Photoactive Bacteriopheophytin. 2. The Rates and Yields of Charge Separation and Recombination. <i>The Journal of Physical Chemistry</i> , 1995, 99, 8910-8917.	2.9	73
75	Insights into the factors controlling the rates of the deactivation processes that compete with charge separation in photosynthetic reaction centers. <i>Chemical Physics</i> , 1993, 176, 615-629.	0.9	36
76	Temperature-independent electron transfer in <i>Rhodobacter capsulatus</i> wild-type and HisM200 .fwdarw. Leu photosynthetic reaction centers. <i>The Journal of Physical Chemistry</i> , 1991, 95, 3379-3383.	2.9	32
77	Time-resolved and static optical properties of vibrationally excited porphyrins. <i>Journal of Chemical Physics</i> , 1991, 94, 6020-6029.	1.2	96
78	Investigation into the source of electron transfer asymmetry in bacterial reaction centers. <i>Biochemistry</i> , 1991, 30, 8315-8322.	1.2	104
79	Charge transfer and charge resonance states of the primary electron donor in wild-type and mutant bacterial reaction centers. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1990, 1020, 239-246.	0.5	39
80	Influence of an amino-acid residue on the optical properties and electron transfer dynamics of a photosynthetic reaction centre complex. <i>Nature</i> , 1988, 336, 182-184.	13.7	168
81	Subpicosecond characterization of the optical properties of the primary electron donor and the mechanism of the initial electron transfer in <i>Rhodobacter capsulatus</i> reaction centers. <i>FEBS Letters</i> , 1988, 239, 211-218.	1.3	43
82	Subpicosecond Spectroscopy of Charge Separation in <i>Rhodobacter capsulatus</i> Reaction Centers. <i>Israel Journal of Chemistry</i> , 1988, 28, 79-85.	1.0	33
83	Primary photochemistry of reaction centers from the photosynthetic purple bacteria. <i>Photosynthesis Research</i> , 1987, 13, 225-260.	1.6	398
84	Picosecond Measurements of Electron Transfer in Bacterial Photosynthetic Reaction Centers. <i>ACS Symposium Series</i> , 1986, , 205-218.	0.5	1
85	Temperature and detection-wavelength dependence of the picosecond electron-transfer kinetics measured in <i>Rhodospseudomonas sphaeroides</i> reaction centers. Resolution of new spectral and kinetic components in the primary charge-separation process. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1985, 810, 33-48.	0.5	211
86	Picosecond-photodichroism studies of the transient states in <i>Rhodospseudomonas sphaeroides</i> reaction centers at 5 K. Effects of electron transfer on the six bacteriochlorin pigments. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1985, 810, 49-61.	0.5	140
87	The question of the intermediate state P ⁺ Chl- in bacterial photosynthesis. <i>FEBS Letters</i> , 1985, 185, 76-82.	1.3	52
88	Primary photochemistry in the facultative green photosynthetic bacterium <i>Chloroflexus aurantiacus</i> . <i>Journal of Cellular Biochemistry</i> , 1983, 22, 251-261.	1.2	69
89	Picosecond measurements of the primary photochemical events in reaction centers isolated from the facultative green photosynthetic bacterium <i>Chloroflexus aurantiacus</i> . <i>FEBS Letters</i> , 1983, 158, 73-78.	1.3	46