

John T M Kennis

List of Publications by Year in descending order

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80
papers

5,160
citations

94433

37
h-index

88630

70
g-index

82
all docs

82
docs citations

82
times ranked

5181
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of a mechanism of photoprotective energy dissipation in higher plants. <i>Nature</i> , 2007, 450, 575-578.	27.8	808
2	Ultrafast transient absorption spectroscopy: principles and application to photosynthetic systems. <i>Photosynthesis Research</i> , 2009, 101, 105-118.	2.9	590
3	A photoactive carotenoid protein acting as light intensity sensor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 12075-12080.	7.1	324
4	Primary Reactions of the LOV2 Domain of Phototropin, a Plant Blue-Light Photoreceptor. <i>Biochemistry</i> , 2003, 42, 3385-3392.	2.5	214
5	An alternative carotenoid-to-bacteriochlorophyll energy transfer pathway in photosynthetic light harvesting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 6017-6022.	7.1	202
6	Unraveling the Carrier Dynamics of BivO ₄ : A Femtosecond to Microsecond Transient Absorption Study. <i>Journal of Physical Chemistry C</i> , 2014, 118, 27793-27800.	3.1	142
7	Uncovering the hidden ground state of green fluorescent protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 17988-17993.	7.1	135
8	Proton-transfer and hydrogen-bond interactions determine fluorescence quantum yield and photochemical efficiency of bacteriophytochrome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9170-9175.	7.1	132
9	A simple artificial light-harvesting dyad as a model for excess energy dissipation in oxygenic photosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 5343-5348.	7.1	125
10	Light Harvesting by Carotenoids Incorporated into the B850 Light-Harvesting Complex from <i>Rhodospira rubra</i> : Excited-State Relaxation, Ultrafast Triplet Formation, and Energy Transfer to Bacteriochlorophyll. <i>Journal of Physical Chemistry B</i> , 2003, 107, 5642-5649.	2.6	111
11	A Photochromic Histidine Kinase Rhodopsin (HKR1) That Is Bimodally Switched by Ultraviolet and Blue Light. <i>Journal of Biological Chemistry</i> , 2012, 287, 40083-40090.	3.4	106
12	Light Harvesting by Chlorophylls and Carotenoids in the Photosystem I Core Complex of <i>Synechococcus elongatus</i> : A Fluorescence Upconversion Study. <i>Journal of Physical Chemistry B</i> , 2001, 105, 4485-4494.	2.6	102
13	The LOV2 Domain of Phototropin: A Reversible Photochromic Switch. <i>Journal of the American Chemical Society</i> , 2004, 126, 4512-4513.	13.7	102
14	Ultrafast spectroscopy of biological photoreceptors. <i>Current Opinion in Structural Biology</i> , 2007, 17, 623-630.	5.7	98
15	Light Harvesting and Photoprotective Functions of Carotenoids in Compact Artificial Photosynthetic Antenna Designs. <i>Journal of Physical Chemistry B</i> , 2004, 108, 414-425.	2.6	86
16	Photoactivation Mechanism, Timing of Protein Secondary Structure Dynamics and Carotenoid Translocation in the Orange Carotenoid Protein. <i>Journal of the American Chemical Society</i> , 2019, 141, 520-530.	13.7	80
17	Primary Reactions of the LOV2 Domain of Phototropin Studied with Ultrafast Mid-Infrared Spectroscopy and Quantum Chemistry. <i>Biophysical Journal</i> , 2009, 97, 227-237.	0.5	79
18	The Role of Key Amino Acids in the Photoactivation Pathway of the <i>Synechocystis</i> Slr1694 BLUF Domain. <i>Biochemistry</i> , 2009, 48, 11458-11469.	2.5	72

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19	Fluorescence quantum yield and photochemistry of bacteriophytochrome constructs. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 11985.	2.8	70
20	Carotenoid Photoprotection in Artificial Photosynthetic Antennas. <i>Journal of the American Chemical Society</i> , 2011, 133, 7007-7015.	13.7	70
21	The terminal phycobilisome emitter, L _{CM} : A light-harvesting pigment with a phytochrome chromophore. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15880-15885.	7.1	69
22	Energy Transfer, Excited-State Deactivation, and Exciplex Formation in Artificial Carotenoid-Phthalocyanine Light-Harvesting Antennas. <i>Journal of Physical Chemistry B</i> , 2007, 111, 6868-6877.	2.6	62
23	Conformational Heterogeneity and Propagation of Structural Changes in the LOV2/Zip1 Domain from <i>Avena sativa</i> Phototropin 1 as Recorded by Temperature-Dependent FTIR Spectroscopy. <i>Biophysical Journal</i> , 2009, 97, 238-247.	0.5	61
24	Molecular Adaptation of Photoprotection: Triplet States in Light-Harvesting Proteins. <i>Biophysical Journal</i> , 2011, 101, 934-942.	0.5	58
25	Identification of excited-state energy transfer and relaxation pathways in the peridinin-chlorophyll complex: an ultrafast mid-infrared study. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 9256.	2.8	54
26	The photochemistry of sodium ion pump rhodopsin observed by watermarked femto- to submillisecond stimulated Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 24729-24736.	2.8	54
27	Molecular eyes: proteins that transform light into biological information. <i>Interface Focus</i> , 2013, 3, 20130005.	3.0	52
28	Unfolding of the C-Terminal Zip1 Helix in the LOV2 Photoreceptor Domain Observed by Time-Resolved Vibrational Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3472-3476.	4.6	52
29	Triplet State Dynamics in Peridinin-Chlorophyll-a-Protein: A New Pathway of Photoprotection in LHCs?. <i>Biophysical Journal</i> , 2007, 93, 2118-2128.	0.5	50
30	FTIR Spectroscopy Revealing Light-Dependent Refolding of the Conserved Tongue Region of Bacteriophytochrome. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2512-2515.	4.6	49
31	Reaction dynamics of the chimeric channelrhodopsin C1C2. <i>Scientific Reports</i> , 2017, 7, 7217.	3.3	48
32	Spectral watermarking in femtosecond stimulated Raman spectroscopy: resolving the nature of the carotenoid S* state. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 14619-14628.	2.8	47
33	NeoR, a near-infrared absorbing rhodopsin. <i>Nature Communications</i> , 2020, 11, 5682.	12.8	45
34	Primary Reactions of Bacteriophytochrome Observed with Ultrafast Mid-Infrared Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2011, 115, 3778-3786.	2.5	43
35	¹² C-Labelled Carotene to Chlorophyll Singlet Energy Transfer in the Photosystem I Core of <i>Synechococcus elongatus</i> Proceeds via the ¹² C-Labelled Carotene S ₂ and S ₁ States. <i>Journal of Physical Chemistry B</i> , 2003, 107, 5995-6002.	2.6	41
36	Femto- to Microsecond Photodynamics of an Unusual Bacteriophytochrome. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 239-243.	4.6	41

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37	Femtosecond Fluorescence Upconversion Studies of Light Harvesting by β^2 -Carotene in Oxygenic Photosynthetic Core Proteins. <i>Journal of Physical Chemistry B</i> , 2004, 108, 19029-19035.	2.6	37
38	Carotenoids as electron or excited-state energy donors in artificial photosynthesis: an ultrafast investigation of a carotenoporphyrin and a carotenofullerene dyad. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 4775.	2.8	31
39	Molecular Origin of Photoprotection in Cyanobacteria Probed by Watermarked Femtosecond Stimulated Raman Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1788-1792.	4.6	31
40	Wavelength-modulated femtosecond stimulated raman spectroscopy approach towards automatic data processing. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 18123.	2.8	29
41	Confinement in crystal lattice alters entire photocycle pathway of the Photoactive Yellow Protein. <i>Nature Communications</i> , 2020, 11, 4248.	12.8	29
42	Proton-Coupled Electron Transfer Constitutes the Photoactivation Mechanism of the Plant Photoreceptor UVR8. <i>Journal of the American Chemical Society</i> , 2015, 137, 8113-8120.	13.7	28
43	Perturbation of the ground-state electronic structure of FMN by the conserved cysteine in phototropin LOV2 domains. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 6693.	2.8	27
44	Photoadduct Formation from the FMN Singlet Excited State in the LOV2 Domain of <i>Chlamydomonas reinhardtii</i> Phototropin. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4380-4384.	4.6	23
45	Dual Photoisomerization on Distinct Potential Energy Surfaces in a UV-Absorbing Rhodopsin. <i>Journal of the American Chemical Society</i> , 2020, 142, 11464-11473.	13.7	23
46	On the role of excitonic interactions in carotenoid-phthalocyanine dyads and implications for photosynthetic regulation. <i>Photosynthesis Research</i> , 2012, 111, 237-243.	2.9	22
47	Photoionization and Electron Radical Recombination Dynamics in Photoactive Yellow Protein Investigated by Ultrafast Spectroscopy in the Visible and Near-Infrared Spectral Region. <i>Journal of Physical Chemistry B</i> , 2013, 117, 11042-11048.	2.6	22
48	Strong pH-Dependent Near-Infrared Fluorescence in a Microbial Rhodopsin Reconstituted with a Red-Shifting Retinal Analogue. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6469-6474.	4.6	22
49	Unraveling the Excited-State Dynamics and Light-Harvesting Functions of Xanthophylls in Light-Harvesting Complex II Using Femtosecond Stimulated Raman Spectroscopy. <i>Journal of the American Chemical Society</i> , 2020, 142, 17346-17355.	13.7	22
50	Charge separation and energy transfer in a carotenoid-C60 dyad: photoinduced electron transfer from the carotenoid excited states. <i>Photochemical and Photobiological Sciences</i> , 2006, 5, 1142-1149.	2.9	21
51	New light-harvesting roles of hot and forbidden carotenoid states in artificial photosynthetic constructs. <i>Chemical Science</i> , 2012, 3, 2052.	7.4	21
52	Ultrafast excited-state dynamics and fluorescence deactivation of near-infrared fluorescent proteins engineered from bacteriophytochromes. <i>Scientific Reports</i> , 2015, 5, 12840.	3.3	21
53	Bright blue-shifted fluorescent proteins with Cys in the GAF domain engineered from bacterial phytochromes: fluorescence mechanisms and excited-state dynamics. <i>Scientific Reports</i> , 2016, 6, 37362.	3.3	20
54	The molecular pH-response mechanism of the plant light-stress sensor PsbS. <i>Nature Communications</i> , 2021, 12, 2291.	12.8	20

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55	The Primary Photophysics of the <i>Avena sativa</i> Phototropin 1 LOV2 Domain Observed with Time-resolved Emission Spectroscopy. <i>Photochemistry and Photobiology</i> , 2011, 87, 534-541.	2.5	18
56	Proline 68 Enhances Photoisomerization Yield in Photoactive Yellow Protein. <i>Journal of Physical Chemistry B</i> , 2011, 115, 6668-6677.	2.6	17
57	Light-Induced Rearrangement of the β 5 Strand in the BLUF Photoreceptor SyPixD (Slr1694). <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4749-4753.	4.6	17
58	Photoinduced formation of flavin radicals in BLUF domains lacking the central glutamine. <i>FEBS Journal</i> , 2015, 282, 3161-3174.	4.7	16
59	Helical Contributions Mediate Light-Activated Conformational Change in the LOV2 Domain of <i>Avena sativa</i> Phototropin 1. <i>ACS Omega</i> , 2019, 4, 1238-1243.	3.5	15
60	Bioinspired energy conversion. <i>Pure and Applied Chemistry</i> , 2005, 77, 1001-1008.	1.9	14
61	Tetrapyrrole Singlet Excited State Quenching by Carotenoids in an Artificial Photosynthetic Antenna. <i>Journal of Physical Chemistry B</i> , 2006, 110, 25411-25420.	2.6	14
62	Membrane matters: The impact of a nanodisc-bilayer or a detergent microenvironment on the properties of two eubacterial rhodopsins. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183113.	2.6	14
63	Correction for the time dependent inner filter effect caused by transient absorption in femtosecond stimulated Raman experiment. <i>Chemical Physics Letters</i> , 2012, 544, 94-101.	2.6	13
64	Ultrafast Proton Shuttling in <i>Psammocora</i> Cyan Fluorescent Protein. <i>Journal of Physical Chemistry B</i> , 2013, 117, 11134-11143.	2.6	13
65	Short Hydrogen Bonds and Negative Charge in Photoactive Yellow Protein Promote Fast Isomerization but not High Quantum Yield. <i>Journal of Physical Chemistry B</i> , 2015, 119, 2372-2383.	2.6	10
66	Spectroscopic Analysis of a Biomimetic Model of Tyr ^Z Function in PSII. <i>Journal of Physical Chemistry B</i> , 2015, 119, 12156-12163.	2.6	10
67	Polarization-controlled optimal scatter suppression in transient absorption spectroscopy. <i>Scientific Reports</i> , 2017, 7, 43484.	3.3	10
68	The femtosecond-to-second photochemistry of red-shifted fast-closing anion channelrhodopsin <i>Ps</i> ACR1. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 30402-30409.	2.8	9
69	A Bacterial Pathogen Sees the Light. <i>Science</i> , 2007, 317, 1041-1042.	12.6	8
70	Kinetic isotope effect of proton-coupled electron transfer in a hydrogen bonded phenol-pyrrolidino[60]fullerene. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 2147-2150.	2.9	7
71	QM calculations predict the energetics and infrared spectra of transient glutamine isomers in LOV photoreceptors. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 13934-13950.	2.8	7
72	Vibronic dynamics resolved by global and target analysis of ultrafast transient absorption spectra. <i>Journal of Chemical Physics</i> , 2021, 155, 114113.	3.0	7

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73	Real-time observation of tetrapyrrole binding to an engineered bacterial phytochrome. <i>Communications Chemistry</i> , 2021, 4, .	4.5	5
74	Editorial: Optogenetic Tools in the Molecular Spotlight. <i>Frontiers in Molecular Biosciences</i> , 2016, 3, 14.	3.5	4
75	Photoreaction Dynamics of Red-Shifting Retinal Analogues Reconstituted in Proteorhodopsin. <i>Journal of Physical Chemistry B</i> , 2019, 123, 4242-4250.	2.6	4
76	Dual Singlet Excited-State Quenching Mechanisms in an Artificial Caroteno-Phthalocyanine Light Harvesting Antenna. <i>ACS Physical Chemistry Au</i> , 2022, 2, 59-67.	4.0	3
77	Correlating Ultrafast Dynamics, Liquid Crystalline Phases, and Ambipolar Transport in Fluorinated Benzothiadiazole Dyes. <i>Advanced Electronic Materials</i> , 2021, 7, 2100186.	5.1	2
78	Synthesis and Photophysics of a Red-Light Absorbing Supramolecular Chromophore System. <i>Chemistry - A European Journal</i> , 2014, 20, 10185-10185.	3.3	0
79	Structural and sequence analyses of an infrared fluorescent tissue marker. <i>FASEB Journal</i> , 2011, 25, 928.1.	0.5	0
80	Structure-based engineering of an infrared fluorescent protein marker. <i>FASEB Journal</i> , 2013, 27, 576.4.	0.5	0