Justin C Johnson

List of Publications by Year
in descending order

109	22,343	36691 53	32181 105
papers	citations	h-index	g-index

113	113	113	24902
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Triplet-pair spin signatures from macroscopically aligned heteroacenes in an oriented single crystal. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	14
2	Hydrogen Bonding Optimizes Singlet Fission in Carboxylic Acid Functionalized Anthradithiophene Films. ChemPhotoChem, 2021, 5, 68-78.	1.5	7
3	Resolving electron injection from singlet fission-borne triplets into mesoporous transparent conducting oxides. Chemical Science, 2021, 12, 11146-11156.	3.7	1
4	Interlayer Triplet Energy Transfer in Dionâ€“Jacobson Two-Dimensional Lead Halide Perovskites Containing Naphthalene Diammonium Cations. Journal of Physical Chemistry Letters, 2021, 12, 4793-4798.	2.1	19
5	Open questions on the photophysics of ultrafast singlet fission. Communications Chemistry, 2021, 4, .	2.0	8
6	Evaluation of Nanostructured Î²-Mn₂V₂O₇ Thin Films as Photoanodes for Photoelectrochemical Water Oxidation. Chemistry of Materials, 2021, 33, 7743-7754.	3.2	4
7	Enhancing interfacial charge transfer in a WO₃/BiVO₄ photoanode heterojunction through gallium and tungsten co-doping and a sulfur modified Bi₂O₃ interfacial layer. Journal of Materials Chemistry A, 2021, 9, 16137-16149.	5.2	22
8	Interlayer Triplet-Sensitized Luminescence in Layered Two-Dimensional Hybrid Metal-Halide Perovskites. ACS Energy Letters, 2021, 6, 4079-4096.	8.8	22
9	Competing Singlet Fission and Excimer Formation in Solid Fluorinated 1,3-Diphenylisobenzofurans. Journal of Physical Chemistry C, 2021, 125, 27058-27071.	1.5	9
10	Electronic States of 2,3-Diamino-1,4-naphthoquinone and Its N-Alkylated Derivatives. Journal of Physical Chemistry C, 2020, 124, 60-69.	1.5	12
11	Slow charge transfer from pentacene triplet states at the Marcus optimum. Nature Chemistry, 2020, 12, 63-70.	6.6	36
12	Triplet Excitons in Pentacene Are Intrinsically Difficult to Dissociate via Charge Transfer. Journal of Physical Chemistry C, 2020, 124, 26153-26164.	1.5	12
13	Conversion between triplet pair states is controlled by molecular coupling in pentadithiophene thin films. Chemical Science, 2020, 11, 7226-7238.	3.7	8
14	Transforming energy using quantum dots. Energy and Environmental Science, 2020, 13, 1347-1376.	15.6	76
15	Spatial separation of triplet excitons drives endothermic singlet fission. Nature Chemistry, 2020, 12, 391-398.	6.6	81
16	Lessons from intramolecular singlet fission with covalently bound chromophores. Journal of Chemical Physics, 2020, 152, 040904.	1.2	79
17	Thermal Activation of a Copper-Loaded Covalent Organic Framework for Near-Ambient Temperature Hydrogen Storage and Delivery. , 2020, 2, 227-232.		21
18	An exciting boost for solar cells. Nature, 2019, 571, 38-39.	13.7	17

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19	Emerging Design Principles for Enhanced Solar Energy Utilization with Singlet Fission. Journal of Physical Chemistry C, 2019, 123, 3923-3934.	1.5	59
20	Molecular Packing and Singlet Fission: The Parent and Three Fluorinated 1,3-Diphenylisobenzofurans. Journal of Physical Chemistry Letters, 2019, 10, 1947-1953.	2.1	25
21	Sensitizing Singlet Fission with Perovskite Nanocrystals. Journal of the American Chemical Society, 2019, 141, 4919-4927.	6.6	83
22	Structure and photophysics of indigoids for singlet fission: Cibalackrot. Journal of Chemical Physics, 2019, 151, 184903.	1.2	40
23	Effect of nanotube coupling on exciton transport in polymer-free monochiral semiconducting carbon nanotube networks. Nanoscale, 2019, 11, 21196-21206.	2.8	17
24	Dynamics of singlet fission and electron injection in self-assembled acene monolayers on titanium dioxide. Chemical Science, 2018, 9, 3004-3013.	3.7	41
25	Control of Energy Flow Dynamics between Tetracene Ligands and PbS Quantum Dots by Size Tuning and Ligand Coverage. Nano Letters, 2018, 18, 865-873.	4.5	62
26	Singlet Fission Involves an Interplay between Energetic Driving Force and Electronic Coupling in Perylenediimide Films. Journal of the American Chemical Society, 2018, 140, 814-826.	6.6	167
27	Transport of Spin-Entangled Triplet Excitons Generated by Singlet Fission. Journal of Physical Chemistry Letters, 2018, 9, 6731-6738.	2.1	33
28	Perovskite Quantum Dot Photovoltaic Materials beyond the Reach of Thin Films: Full-Range Tuning of A-Site Cation Composition. ACS Nano, 2018, 12, 10327-10337.	7.3	186
29	Direct Measurements of Carrier Transport in Polycrystalline Methylammonium Lead Iodide Perovskite Films with Transient Grating Spectroscopy. Journal of Physical Chemistry Letters, 2018, 9, 5710-5717.	2.1	26
30	Enhanced Multiple Exciton Generation in PbS | CdS Janus-like Heterostructured Nanocrystals. ACS Nano, 2018, 12, 10084-10094.	7.3	56
31	Diameter-Dependent Optical Absorption and Excitation Energy Transfer from Encapsulated Dye Molecules toward Single-Walled Carbon Nanotubes. ACS Nano, 2018, 12, 6881-6894.	7.3	33
32	Phenyl/Perfluorophenyl Stacking Interactions Enhance Structural Order in Two-Dimensional Covalent Organic Frameworks. Crystal Growth and Design, 2018, 18, 4160-4166.	1.4	31
33	Singlet Fission and Excimer Formation in Disordered Solids of Alkyl-Substituted 1,3-Diphenylisobenzofurans. Journal of Physical Chemistry A, 2017, 121, 8596-8603.	1.1	32
34	1,3-Diphenylisobenzofuran: a Model Chromophore for Singlet Fission. Topics in Current Chemistry, 2017, 375, 80.	3.0	30
35	Controlling Long-Lived Triplet Generation from Intramolecular Singlet Fission in the Solid State. Journal of Physical Chemistry Letters, 2017, 8, 6086-6091.	2.1	31
36	Solvent-Controlled Branching of Localized versus Delocalized Singlet Exciton States and Equilibration with Charge Transfer in a Structurally Well-Defined Tetracene Dimer. Journal of Physical Chemistry A, 2017, 121, 9229-9242.	1.1	36

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37	Status and Prognosis of Future-Generation Photoconversion to Photovoltaics and Solar Fuels. ACS Energy Letters, 2016, 1, 344-347.	8.8	9
38	Two Birds with One Stone: Tailoring Singlet Fission for Both Triplet Yield and Exciton Diffusion Length. Advanced Materials, 2016, 28, 7539-7547.	11.1	69
39	Excitation Localization/Delocalization Isomerism in a Strongly Coupled Covalent Dimer of 1,3-Diphenylisobenzofuran. Journal of Physical Chemistry A, 2016, 120, 3473-3483.	1.1	34
40	Probing Exciton Diffusion and Dissociation in Single-Walled Carbon Nanotubeâ€“C₆₀ Heterojunctions. Journal of Physical Chemistry Letters, 2016, 7, 1794-1799.	2.1	33
41	Third-order nonlinear optical properties of methylammonium lead halide perovskite films. Journal of Materials Chemistry C, 2016, 4, 4847-4852.	2.7	45
42	Covalently Bound Nitroxyl Radicals in an Organic Framework. Journal of Physical Chemistry Letters, 2016, 7, 3660-3665.	2.1	33
43	Large polarization-dependent exciton optical Stark effect in lead iodide perovskites. Nature Communications, 2016, 7, 12613.	5.8	98
44	Nongeminate radiative recombination of free charges in cation-exchanged PbS quantum dot films. Chemical Physics, 2016, 471, 75-80.	0.9	8
45	Polymorphism influences singlet fission rates in tetracene thin films. Chemical Science, 2016, 7, 1185-1191.	3.7	114
46	Femtosecond Measurements Of Size-Dependent Spin Crossover In Fe^{II}(pyz)Pt(CN)₄ Nanocrystals. Journal of Physical Chemistry Letters, 2016, 7, 148-153.	2.1	12
47	Multiple exciton generation in quantum dots versus singlet fission in molecular chromophores for solar photon conversion. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140412.	1.6	37
48	Quantum Confined Electronâ€“Phonon Interaction in Silicon Nanocrystals. Nano Letters, 2015, 15, 1511-1516.	4.5	50
49	Photocurrent Enhanced by Singlet Fission in a Dye-Sensitized Solar Cell. ACS Applied Materials & Interfaces, 2015, 7, 2286-2293.	4.0	54
50	Silyl Radical Abstraction in the Functionalization of Plasma-Synthesized Silicon Nanocrystals. Chemistry of Materials, 2015, 27, 6869-6878.	3.2	72
51	Cooperative singlet and triplet exciton transport in tetracene crystals visualized by ultrafast microscopy. Nature Chemistry, 2015, 7, 785-792.	6.6	190
52	Singlet Fission and 1,3-Diphenylisobenzofuran as a Model Chromophore. RSC Energy and Environment Series, 2014, , 324-344.	0.2	7
53	Charge Generation in PbS Quantum Dot Solar Cells Characterized by Temperature-Dependent Steady-State Photoluminescence. ACS Nano, 2014, 8, 12814-12825.	7.3	59
54	Mechanism of Singlet Fission in Thin Films of 1,3-Diphenylisobenzofuran. Journal of the American Chemical Society, 2014, 136, 7363-7373.	6.6	130

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55	Ultrafast Spectroscopic Signature of Charge Transfer between Single-Walled Carbon Nanotubes and C₆₀. ACS Nano, 2014, 8, 8573-8581.	7.3	62
56	Carrier Transport in PbS and PbSe QD Films Measured by Photoluminescence Quenching. Journal of Physical Chemistry C, 2014, 118, 16228-16235.	1.5	50
57	Two Thin Film Polymorphs of the Singlet Fission Compound 1,3-Diphenylisobenzofuran. Journal of Physical Chemistry C, 2014, 118, 12121-12132.	1.5	85
58	Coupling between a Molecular Charge-Transfer Exciton and Surface Plasmons in a Nanostructured Metal Grating. Journal of Physical Chemistry Letters, 2013, 4, 2658-2663.	2.1	11
59	Coherent Exciton Delocalization in Strongly Coupled Quantum Dot Arrays. Nano Letters, 2013, 13, 4862-4869.	4.5	56
60	The Role of Chromophore Coupling in Singlet Fission. Accounts of Chemical Research, 2013, 46, 1290-1299.	7.6	235
61	Toward Designed Singlet Fission: Solution Photophysics of Two Indirectly Coupled Covalent Dimers of 1,3-Diphenylisobenzofuran. Journal of Physical Chemistry B, 2013, 117, 4680-4695.	1.2	117
62	Sharp exponential band tails in highly disordered lead sulfide quantum dot arrays. Physical Review B, 2012, 86, .	1.1	55
63	Charge Trapping in Bright and Dark States of Coupled PbS Quantum Dot Films. ACS Nano, 2012, 6, 3292-3303.	7.3	86
64	Control of PbSe Quantum Dot Surface Chemistry and Photophysics Using an Alkylselenide Ligand. ACS Nano, 2012, 6, 5498-5506.	7.3	99
65	Excited-State Processes in First-Generation Phenyl-Cored Thiophene Dendrimers. Journal of Physical Chemistry A, 2011, 115, 2515-2522.	1.1	5
66	Emission Quenching in PbSe Quantum Dot Arrays by Short-Term Air Exposure. Journal of Physical Chemistry Letters, 2011, 2, 889-893.	2.1	51
67	Correlation between Photooxidation and the Appearance of Raman Scattering Bands in Lead Chalcogenide Quantum Dots. Journal of Physical Chemistry Letters, 2011, 2, 599-603.	2.1	35
68	Ultrafast Electronic Delocalization in CdSe/CdS Quantum Rod Heterostructures. Nano Letters, 2011, 11, 4923-4931.	4.5	42
69	Nanowire dye-sensitized solar cells. , 2010, , 75-79.		3
70	Absolute Photoluminescence Quantum Yields of IR-26 Dye, PbS, and PbSe Quantum Dots. Journal of Physical Chemistry Letters, 2010, 1, 2445-2450.	2.1	256
71	Semiconductor Quantum Dots and Quantum Dot Arrays and Applications of Multiple Exciton Generation to Third-Generation Photovoltaic Solar Cells. Chemical Reviews, 2010, 110, 6873-6890.	23.0	1,118
72	Coupling one electron photoprocesses to multielectron catalysts: Towards a photoelectrocatalytic system. Journal of Electroanalytical Chemistry, 2010, 650, 10-15.	1.9	8

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73	Enhanced Triplet Formation in Polycrystalline Tetracene Films by Femtosecond Optical-Pulse Shaping. Physical Review Letters, 2010, 105, 257403.	2.9	90
74	Toward Designed Singlet Fission: Electronic States and Photophysics of 1,3-Diphenylisobenzofuran. Journal of Physical Chemistry A, 2010, 114, 1457-1473.	1.1	98
75	Singlet Exciton Fission for Solar Cell Applications: Energy Aspects of Interchromophore Coupling. Journal of Physical Chemistry B, 2010, 114, 14223-14232.	1.2	126
76	High Triplet Yield from Singlet Fission in a Thin Film of 1,3-Diphenylisobenzofuran. Journal of the American Chemical Society, 2010, 132, 16302-16303.	6.6	236
77	Size and Bandgap Control in the Solution-Phase Synthesis of Near-Infrared-Emitting Germanium Nanocrystals. ACS Nano, 2010, 4, 7459-7466.	7.3	135
78	The Ultrafast Photophysics of Pentacene Coupled to Surface Plasmon Active Nanohole Films. Journal of Physical Chemistry C, 2009, 113, 6871-6877.	1.5	41
79	Ultrafast Exciton Fine Structure Relaxation Dynamics in Lead Chalcogenide Nanocrystals. Nano Letters, 2008, 8, 1374-1381.	4.5	38
80	Toward singlet fission for excitonic solar cells. Proceedings of SPIE, 2007, , .	0.8	14
81	Singlet Fission for Dye-Sensitized Solar Cells:Â Can a Suitable Sensitizer Be Found?. Journal of the American Chemical Society, 2006, 128, 16546-16553.	6.6	375
82	PbTe Colloidal Nanocrystals:Â Synthesis, Characterization, and Multiple Exciton Generation. Journal of the American Chemical Society, 2006, 128, 3241-3247.	6.6	660
83	Femtosecond Spectroscopy of Carrier Relaxation Dynamics in Type II CdSe/CdTe Tetrapod Heteronanostructures. Nano Letters, 2005, 5, 1809-1813.	4.5	148
84	Highly Efficient Multiple Exciton Generation in Colloidal PbSe and PbS Quantum Dots. Nano Letters, 2005, 5, 865-871.	4.5	1,548
85	Nanowire dye-sensitized solar cells. Nature Materials, 2005, 4, 455-459.	13.3	5,232
86	Shape control of near-field probes using dynamic meniscus etching. Journal of Microscopy, 2004, 214, 27-35.	0.8	24
87	High spectral resolution multiplex CARS spectroscopy using chirped pulses. Chemical Physics Letters, 2004, 387, 436-441.	1.2	96
88	Direct experimental validation of the Jonesâ€“Ray effect. Chemical Physics Letters, 2004, 397, 46-50.	1.2	168
89	Nanoribbon Waveguides for Subwavelength Photonics Integration. Science, 2004, 305, 1269-1273.	6.0	879
90	Ultrafast Carrier Dynamics in Single ZnO Nanowire and Nanoribbon Lasers. Nano Letters, 2004, 4, 197-204.	4.5	319

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91	Optical Cavity Effects in ZnO Nanowire Lasers and Waveguides. Journal of Physical Chemistry B, 2003, 107, 8816-8828.	1.2	602
92	Time-Resolved Second Harmonic Generation Near-Field Scanning Optical Microscopy. ChemPhysChem, 2003, 4, 1243-1247.	1.0	11
93	ZnO Nanoribbon Microcavity Lasers. Advanced Materials, 2003, 15, 1907-1911.	11.1	220
94	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie, 2003, 115, 3139-3142.	1.6	129
95	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays.. ChemInform, 2003, 34, no.	0.1	2
96	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie - International Edition, 2003, 42, 3031-3034.	7.2	1,562
97	Dendritic Nanowire Ultraviolet Laser Array. Journal of the American Chemical Society, 2003, 125, 4728-4729.	6.6	577
98	Self-Organized GaN Quantum Wire UV Lasers. Journal of Physical Chemistry B, 2003, 107, 8721-8725.	1.2	281
99	<title>Single nanowire lasers and waveguides</title>. , 2003, 5223, 187.		6
100	Nanoscopic interchain aggregate domain formation in conjugated polymer films studied by third harmonic generation near-field scanning optical microscopy. Journal of Chemical Physics, 2002, 117, 6688-6698.	1.2	43
101	Characterization of biological structures with nonlinear chemical imaging nanomicroscopy. , 2002, 4633, 62.		0
102	Near-Field Imaging of Nonlinear Optical Mixing in Single Zinc Oxide Nanowires. Nano Letters, 2002, 2, 279-283.	4.5	305
103	Nonlinear Chemical Imaging Nanomicroscopy:Â From Second and Third Harmonic Generation to Multiplex (Broad-Bandwidth) Sum Frequency Generation Near-Field Scanning Optical Microscopy. Journal of Physical Chemistry B, 2002, 106, 5143-5154.	1.2	78
104	Controlled Growth of ZnO Nanowires and Their Optical Properties. Advanced Functional Materials, 2002, 12, 323.	7.8	1,690
105	Single gallium nitride nanowire lasers. Nature Materials, 2002, 1, 106-110.	13.3	1,144
106	The Nature of Interchain Excitations in Conjugated Polymers:â€‰ Spatially-Varying Interfacial Solvatochromism of Annealed MEH-PPV Films Studied by Near-Field Scanning Optical Microscopy (NSOM). Journal of Physical Chemistry B, 2002, 106, 9496-9506.	1.2	57
107	Single Nanowire Lasers. Journal of Physical Chemistry B, 2001, 105, 11387-11390.	1.2	425
108	Near-Field Scanning Optical Microscopy (NSOM) Studies of the Relationship between Interchain Interactions, Morphology, Photodamage, and Energy Transport in Conjugated Polymer Films. Journal of Physical Chemistry B, 2001, 105, 5153-5160.	1.2	82

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109	Nonlinear Chemical Imaging Microscopy:Â Near-Field Third Harmonic Generation Imaging of Human Red Blood Cells. Analytical Chemistry, 2000, 72, 5361-5364.	3.2	38