# Justin C Johnson

List of Publications by Year
in descending order



| 109 | 22,343 | 31902 53 | 28224 105 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 113 | 113 | 113 | 21498 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Nanowire dye-sensitized solar cells. Nature Materials, 2005, 4, 455-459. | 13.3 | 5,232 |
| 2 | Controlled Growth of ZnO Nanowires and Their Optical Properties. Advanced Functional Materials, 2002, 12, 323. | 7.8 | 1,690 |
| 3 | Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie - International Edition, 2003, 42, 3031-3034. | 7.2 | 1,562 |
| 4 | Highly Efficient Multiple Exciton Generation in Colloidal PbSe and PbS Quantum Dots. Nano Letters, 2005, 5, 865-871. | 4.5 | 1,548 |
| 5 | Single gallium nitride nanowire lasers. Nature Materials, 2002, 1, 106-110. | 13.3 | 1,144 |
| 6 | 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 |
| 7 | Nanoribbon Waveguides for Subwavelength Photonics Integration. Science, 2004, 305, 1269-1273. | 6.0 | 879 |
| 8 | PbTe Colloidal Nanocrystals:Â Synthesis, Characterization, and Multiple Exciton Generation. Journal of the American Chemical Society, 2006, 128, 3241-3247. | 6.6 | 660 |
| 9 | Optical Cavity Effects in ZnO Nanowire Lasers and Waveguides. Journal of Physical Chemistry B, 2003, 107, 8816-8828. | 1.2 | 602 |
| 10 | Dendritic Nanowire Ultraviolet Laser Array. Journal of the American Chemical Society, 2003, 125, 4728-4729. | 6.6 | 577 |
| 11 | Single Nanowire Lasers. Journal of Physical Chemistry B, 2001, 105, 11387-11390. | 1.2 | 425 |
| 12 | 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 |
| 13 | Ultrafast Carrier Dynamics in Single ZnO Nanowire and Nanoribbon Lasers. Nano Letters, 2004, 4, 197-204. | 4.5 | 319 |
| 14 | Near-Field Imaging of Nonlinear Optical Mixing in Single Zinc Oxide Nanowires. Nano Letters, 2002, 2, 279-283. | 4.5 | 305 |
| 15 | Self-Organized GaN Quantum Wire UV Lasers. Journal of Physical Chemistry B, 2003, 107, 8721-8725. | 1.2 | 281 |
| 16 | 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 |
| 17 | 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 |
| 18 | The Role of Chromophore Coupling in Singlet Fission. Accounts of Chemical Research, 2013, 46, 1290-1299. | 7.6 | 235 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | ZnO Nanoribbon Microcavity Lasers. Advanced Materials, 2003, 15, 1907-1911. | 11.1 | 220 |
| 20 | Cooperative singlet and triplet exciton transport in tetracene crystals visualized by ultrafast microscopy. Nature Chemistry, 2015, 7, 785-792. | 6.6 | 190 |
| 21 | 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 |
| 22 | Direct experimental validation of the Jonesâ€“Ray effect. Chemical Physics Letters, 2004, 397, 46-50. | 1.2 | 168 |
| 23 | 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 |
| 24 | Femtosecond Spectroscopy of Carrier Relaxation Dynamics in Type II CdSe/CdTe Tetrapod Heteronanostructures. Nano Letters, 2005, 5, 1809-1813. | 4.5 | 148 |
| 25 | Size and Bandgap Control in the Solution-Phase Synthesis of Near-Infrared-Emitting Germanium Nanocrystals. ACS Nano, 2010, 4, 7459-7466. | 7.3 | 135 |
| 26 | Mechanism of Singlet Fission in Thin Films of 1,3-Diphenylisobenzofuran. Journal of the American Chemical Society, 2014, 136, 7363-7373. | 6.6 | 130 |
| 27 | Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie, 2003, 115, 3139-3142. | 1.6 | 129 |
| 28 | Singlet Exciton Fission for Solar Cell Applications: Energy Aspects of Interchromophore Coupling. Journal of Physical Chemistry B, 2010, 114, 14223-14232. | 1.2 | 126 |
| 29 | 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 |
| 30 | Polymorphism influences singlet fission rates in tetracene thin films. Chemical Science, 2016, 7, 1185-1191. | 3.7 | 114 |
| 31 | Control of PbSe Quantum Dot Surface Chemistry and Photophysics Using an Alkylselenide Ligand. ACS Nano, 2012, 6, 5498-5506. | 7.3 | 99 |
| 32 | Toward Designed Singlet Fission: Electronic States and Photophysics of 1,3-Diphenylisobenzofuran. Journal of Physical Chemistry A, 2010, 114, 1457-1473. | 1.1 | 98 |
| 33 | Large polarization-dependent exciton optical Stark effect in lead iodide perovskites. Nature Communications, 2016, 7, 12613. | 5.8 | 98 |
| 34 | High spectral resolution multiplex CARS spectroscopy using chirped pulses. Chemical Physics Letters, 2004, 387, 436-441. | 1.2 | 96 |
| 35 | Enhanced Triplet Formation in Polycrystalline Tetracene Films by Femtosecond Optical-Pulse Shaping. Physical Review Letters, 2010, 105, 257403. | 2.9 | 90 |
| 36 | Charge Trapping in Bright and Dark States of Coupled PbS Quantum Dot Films. ACS Nano, 2012, 6, 3292-3303. | 7.3 | 86 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Two Thin Film Polymorphs of the Singlet Fission Compound 1,3-Diphenylisobenzofuran. Journal of Physical Chemistry C, 2014, 118, 12121-12132. | 1.5 | 85 |
| 38 | Sensitizing Singlet Fission with Perovskite Nanocrystals. Journal of the American Chemical Society, 2019, 141, 4919-4927. | 6.6 | 83 |
| 39 | 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 |
| 40 | Spatial separation of triplet excitons drives endothermic singlet fission. Nature Chemistry, 2020, 12, 391-398. | 6.6 | 81 |
| 41 | Lessons from intramolecular singlet fission with covalently bound chromophores. Journal of Chemical Physics, 2020, 152, 040904. | 1.2 | 79 |
| 42 | 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 |
| 43 | Transforming energy using quantum dots. Energy and Environmental Science, 2020, 13, 1347-1376. | 15.6 | 76 |
| 44 | Silyl Radical Abstraction in the Functionalization of Plasma-Synthesized Silicon Nanocrystals. Chemistry of Materials, 2015, 27, 6869-6878. | 3.2 | 72 |
| 45 | 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 |
| 46 | Ultrafast Spectroscopic Signature of Charge Transfer between Single-Walled Carbon Nanotubes and C<sub>60</sub>. ACS Nano, 2014, 8, 8573-8581. | 7.3 | 62 |
| 47 | 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 |
| 48 | Charge Generation in PbS Quantum Dot Solar Cells Characterized by Temperature-Dependent Steady-State Photoluminescence. ACS Nano, 2014, 8, 12814-12825. | 7.3 | 59 |
| 49 | Emerging Design Principles for Enhanced Solar Energy Utilization with Singlet Fission. Journal of Physical Chemistry C, 2019, 123, 3923-3934. | 1.5 | 59 |
| 50 | 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 |
| 51 | Coherent Exciton Delocalization in Strongly Coupled Quantum Dot Arrays. Nano Letters, 2013, 13, 4862-4869. | 4.5 | 56 |
| 52 | Enhanced Multiple Exciton Generation in PbS\|CdS Janus-like Heterostructured Nanocrystals. ACS Nano, 2018, 12, 10084-10094. | 7.3 | 56 |
| 53 | Sharp exponential band tails in highly disordered lead sulfide quantum dot arrays. Physical Review B, 2012, 86, . | 1.1 | 55 |
| 54 | Photocurrent Enhanced by Singlet Fission in a Dye-Sensitized Solar Cell. ACS Applied Materials & Interfaces, 2015, 7, 2286-2293. | 4.0 | 54 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Emission Quenching in PbSe Quantum Dot Arrays by Short-Term Air Exposure. Journal of Physical Chemistry Letters, 2011, 2, 889-893. | 2.1 | 51 |
| 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 | Quantum Confined Electronâ€“Phonon Interaction in Silicon Nanocrystals. Nano Letters, 2015, 15, 1511-1516. | 4.5 | 50 |
| 58 | Third-order nonlinear optical properties of methylammonium lead halide perovskite films. Journal of Materials Chemistry C, 2016, 4, 4847-4852. | 2.7 | 45 |
| 59 | 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 |
| 60 | Ultrafast Electronic Delocalization in CdSe/CdS Quantum Rod Heterostructures. Nano Letters, 2011, 11, 4923-4931. | 4.5 | 42 |
| 61 | The Ultrafast Photophysics of Pentacene Coupled to Surface Plasmon Active Nanohole Films. Journal of Physical Chemistry C, 2009, 113, 6871-6877. | 1.5 | 41 |
| 62 | Dynamics of singlet fission and electron injection in self-assembled acene monolayers on titanium dioxide. Chemical Science, 2018, 9, 3004-3013. | 3.7 | 41 |
| 63 | Structure and photophysics of indigoids for singlet fission: Cibalackrot. Journal of Chemical Physics, 2019, 151, 184903. | 1.2 | 40 |
| 64 | 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 |
| 65 | Ultrafast Exciton Fine Structure Relaxation Dynamics in Lead Chalcogenide Nanocrystals. Nano Letters, 2008, 8, 1374-1381. | 4.5 | 38 |
| 66 | 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 |
| 67 | 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 |
| 68 | Slow charge transfer from pentacene triplet states at the Marcus optimum. Nature Chemistry, 2020, 12, 63-70. | 6.6 | 36 |
| 69 | 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 |
| 70 | 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 |
| 71 | Probing Exciton Diffusion and Dissociation in Single-Walled Carbon Nanotubeâ€“C<sub>60</sub> Heterojunctions. Journal of Physical Chemistry Letters, 2016, 7, 1794-1799. | 2.1 | 33 |
| 72 | Covalently Bound Nitroxyl Radicals in an Organic Framework. Journal of Physical Chemistry Letters, 2016, 7, 3660-3665. | 2.1 | 33 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Transport of Spin-Entangled Triplet Excitons Generated by Singlet Fission. Journal of Physical Chemistry Letters, 2018, 9, 6731-6738. | 2.1 | 33 |
| 74 | 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 |
| 75 | 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 |
| 76 | 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 |
| 77 | Phenyl/Perfluorophenyl Stacking Interactions Enhance Structural Order in Two-Dimensional Covalent Organic Frameworks. Crystal Growth and Design, 2018, 18, 4160-4166. | 1.4 | 31 |
| 78 | 1,3-Diphenylisobenzofuran: a Model Chromophore for Singlet Fission. Topics in Current Chemistry, 2017, 375, 80. | 3.0 | 30 |
| 79 | 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 |
| 80 | 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 |
| 81 | Shape control of near-field probes using dynamic meniscus etching. Journal of Microscopy, 2004, 214, 27-35. | 0.8 | 24 |
| 82 | Enhancing interfacial charge transfer in a WO<sub>3</sub>/BiVO<sub>4</sub> photoanode heterojunction through gallium and tungsten co-doping and a sulfur modified Bi<sub>2</sub>O<sub>3</sub> interfacial layer. Journal of Materials Chemistry A, 2021, 9, 16137-16149. | 5.2 | 22 |
| 83 | Interlayer Triplet-Sensitized Luminescence in Layered Two-Dimensional Hybrid Metal-Halide Perovskites. ACS Energy Letters, 2021, 6, 4079-4096. | 8.8 | 22 |
| 84 | Thermal Activation of a Copper-Loaded Covalent Organic Framework for Near-Ambient Temperature Hydrogen Storage and Delivery. , 2020, 2, 227-232. | | 21 |
| 85 | 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 |
| 86 | An exciting boost for solar cells. Nature, 2019, 571, 38-39. | 13.7 | 17 |
| 87 | Effect of nanotube coupling on exciton transport in polymer-free monochiral semiconducting carbon nanotube networks. Nanoscale, 2019, 11, 21196-21206. | 2.8 | 17 |
| 88 | Toward singlet fission for excitonic solar cells. Proceedings of SPIE, 2007, , . | 0.8 | 14 |
| 89 | 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 |
| 90 | Femtosecond Measurements Of Size-Dependent Spin Crossover In Fe<sup>II</sup>(pyz)Pt(CN)<sub>4</sub> Nanocrystals. Journal of Physical Chemistry Letters, 2016, 7, 148-153. | 2.1 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | 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 |
| 92 | Triplet Excitons in Pentacene Are Intrinsically Difficult to Dissociate via Charge Transfer. Journal of Physical Chemistry C, 2020, 124, 26153-26164. | 1.5 | 12 |
| 93 | Time-Resolved Second Harmonic Generation Near-Field Scanning Optical Microscopy. ChemPhysChem, 2003, 4, 1243-1247. | 1.0 | 11 |
| 94 | 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 |
| 95 | Status and Prognosis of Future-Generation Photoconversion to Photovoltaics and Solar Fuels. ACS Energy Letters, 2016, 1, 344-347. | 8.8 | 9 |
| 96 | Competing Singlet Fission and Excimer Formation in Solid Fluorinated 1,3-Diphenylisobenzofurans. Journal of Physical Chemistry C, 2021, 125, 27058-27071. | 1.5 | 9 |
| 97 | Coupling one electron photoprocesses to multielectron catalysts: Towards a photoelectrocatalytic system. Journal of Electroanalytical Chemistry, 2010, 650, 10-15. | 1.9 | 8 |
| 98 | Nongeminate radiative recombination of free charges in cation-exchanged PbS quantum dot films. Chemical Physics, 2016, 471, 75-80. | 0.9 | 8 |
| 99 | Conversion between triplet pair states is controlled by molecular coupling in pentadithiophene thin films. Chemical Science, 2020, 11, 7226-7238. | 3.7 | 8 |
| 100 | Open questions on the photophysics of ultrafast singlet fission. Communications Chemistry, 2021, 4, . | 2.0 | 8 |
| 101 | Singlet Fission and 1,3-Diphenylisobenzofuran as a Model Chromophore. RSC Energy and Environment Series, 2014, , 324-344. | 0.2 | 7 |
| 102 | Hydrogen Bonding Optimizes Singlet Fission in Carboxylic Acid Functionalized Anthradithiophene Films. ChemPhotoChem, 2021, 5, 68-78. | 1.5 | 7 |
| 103 | <title>Single nanowire lasers and waveguides</title>. , 2003, 5223, 187. | | 6 |
| 104 | Excited-State Processes in First-Generation Phenyl-Cored Thiophene Dendrimers. Journal of Physical Chemistry A, 2011, 115, 2515-2522. | 1.1 | 5 |
| 105 | Evaluation of Nanostructured Î²-Mn<sub>2</sub>V<sub>2</sub>O<sub>7</sub> Thin Films as Photoanodes for Photoelectrochemical Water Oxidation. Chemistry of Materials, 2021, 33, 7743-7754. | 3.2 | 4 |
| 106 | Nanowire dye-sensitized solar cells. , 2010, , 75-79. | | 3 |
| 107 | Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays.. ChemInform, 2003, 34, no. | 0.1 | 2 |
| 108 | Resolving electron injection from singlet fission-borne triplets into mesoporous transparent conducting oxides. Chemical Science, 2021, 12, 11146-11156. | 3.7 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Characterization of biological structures with nonlinear chemical imaging nanomicroscopy. , 2002, 4633, 62. | | 0 |