Haiming Zhu

List of Publications by Year
in descending order

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158	18,552	22099 59	12558 132
papers	citations	h-index	g-index

164	164	164	15542
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Efficient quasi-stationary charge transfer from quantum dots to acceptors physically-adsorbed in the ligand monolayer. Nano Research, 2022, 15, 617-626.	5.8	13
2	Realizing high-performance organic solar cells through precise control of HOMO driving force based on ternary alloy strategy. Journal of Energy Chemistry, 2022, 65, 133-140.	7.1	18
3	Allâ€Green Solventâ€Processed Planar Heterojunction Organic Solar Cells with Outstanding Power Conversion Efficiency of 16%. Advanced Functional Materials, 2022, 32, 2107567.	7.8	58
4	Highâ€Performance Organic Solar Cells from Nonâ€Halogenated Solvents. Advanced Functional Materials, 2022, 32, 2107827.	7.8	92
5	Manipulating the Crystalline Morphology in the Nonfullerene Acceptor Mixture to Improve the Carrier Transport and Suppress the Energetic Disorder. Small Science, 2022, 2, 2100092.	5.8	5
6	Inhibiting excessive molecular aggregation to achieve highly efficient and stabilized organic solar cells by introducing a star-shaped nitrogen heterocyclic-ring acceptor. Energy and Environmental Science, 2022, 15, 384-394.	15.6	62
7	Thermally activated delayed fluorescence (TADF) organic molecules for efficient X-ray scintillation and imaging. Nature Materials, 2022, 21, 210-216.	13.3	146
8	A New End Group on Nonfullerene Acceptors Endows Efficient Organic Solar Cells with Low Energy Losses. Advanced Functional Materials, 2022, 32, 2108614.	7.8	56
9	Mechanism study on organic ternary photovoltaics with 18.3% certified efficiency: from molecule to device. Energy and Environmental Science, 2022, 15, 855-865.	15.6	62
10	Healing the degradable organicâ€“inorganic heterointerface for highly efficient and stable organic solar cells. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	21
11	Dynamic Exciton Polaron in Two-Dimensional Lead Halide Perovskites and Implications for Optoelectronic Applications. Accounts of Chemical Research, 2022, 55, 345-353.	7.6	36
12	Correlating Electronic Structure and Device Physics with Mixing Region Morphology in Highâ€Efficiency Organic SolarÂCells. Advanced Science, 2022, 9, e2104613.	5.6	10
13	Compromising Charge Generation and Recombination with Asymmetric Molecule for Highâ€Performance Binary Organic Photovoltaics with Over 18% Certified Efficiency. Advanced Functional Materials, 2022, 32, .	7.8	62
14	Interlayer exciton emission in a MoS₂/VOPc inorganic/organic van der Waals heterostructure. Materials Horizons, 2022, 9, 1253-1263.	6.4	6
15	Understanding the molecular mechanisms of the differences in the efficiency and stability of all-polymer solar cells. Journal of Materials Chemistry C, 2022, 10, 1850-1861.	2.7	9
16	Self-Assembled Donorâ€“Acceptor Dyad Molecules Stabilize the Heterojunction of Inverted Perovskite Solar Cells and Modules. ACS Applied Materials & Interfaces, 2022, 14, 6794-6800.	4.0	16
17	Photoinduced Charge Transfer and Recombination Dynamics in Star Nonfullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2022, 13, 1123-1130.	2.1	27
18	Slotâ€Dieâ€Coated Organic Solar Cells Optimized through Multistep Crystallization Kinetics. Solar Rrl, 2022, 6, .	3.1	7

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19	Controlling exciton-exciton annihilation in WSe2 bilayers via interlayer twist. Nano Research, 2022, 15, 4661-4667.	5.8	6
20	Macroscopic assembled graphene nanofilms based room temperature ultrafast midâ€infrared photodetectors. InformaÃ¬Ã-MateriÃ¡ly, 2022, 4, .	8.5	24
21	Spatiotemporally Coupled Electronâ€“Hole Dynamics in Two Dimensional Heterostructures. Nano Letters, 2022, 22, 2547-2553.	4.5	11
22	Pushing the Efficiency of High Openâ€Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning. Advanced Science, 2022, 9, e2200578.	5.6	51
23	Revealing the Sole Impact of Acceptor's Molecular Conformation to Energy Loss and Device Performance of Organic Solar Cells through Positional Isomers. Advanced Science, 2022, 9, e2103428.	5.6	9
24	Non-fused medium bandgap electron acceptors for efficient organic photovoltaics. Journal of Energy Chemistry, 2022, 70, 576-582.	7.1	22
25	Desired open-circuit voltage increase enables efficiencies approaching 19% in symmetric-asymmetric molecule ternary organic photovoltaics. Joule, 2022, 6, 662-675.	11.7	212
26	n-Doping of photoactive layer in binary organic solar cells realizes over 18.3% efficiency. Nano Energy, 2022, 96, 107133.	8.2	28
27	Enhanced Charge Transport and Broad Absorption Enabling Record 18.13% Efficiency of PM6:Y6 Based Ternary Organic Photovoltaics with a High Fill Factor Over 80%. Advanced Functional Materials, 2022, 32, .	7.8	30
28	Singleâ€Junction Organic Solar Cells with 19.17% Efficiency Enabled by Introducing One Asymmetric Guest Acceptor. Advanced Materials, 2022, 34, e2110147.	11.1	377
29	High-performance see-through power windows. Energy and Environmental Science, 2022, 15, 2629-2637.	15.6	51
30	Controllable Anion Doping of Electron Acceptors for High-Efficiency Organic Solar Cells. ACS Energy Letters, 2022, 7, 1764-1773.	8.8	12
31	Highâ€Performance Organic Solar Modules via Bilayerâ€Mergedâ€Annealing Assisted Blade Coating. Advanced Materials, 2022, 34, e2110569.	11.1	38
32	Single-junction organic solar cells with over 19% efficiency enabled by a refined double-fibril network morphology. Nature Materials, 2022, 21, 656-663.	13.3	1,214
33	Asymmetric electron acceptor enables highly luminescent organic solar cells with certified efficiency over 18%. Nature Communications, 2022, 13, 2598.	5.8	113
34	Long-range transport and ultrafast interfacial charge transfer in perovskite/monolayer semiconductor heterostructure for enhanced light absorption and photocarrier lifetime. Journal of Chemical Physics, 2022, 156, .	1.2	10
35	Spontaneous carrier generation and low recombination in high-efficiency non-fullerene solar cells. Energy and Environmental Science, 2022, 15, 3483-3493.	15.6	23
36	Coupled Electronic and Anharmonic Structural Dynamics for Carrier Selfâ€Trapping in Photovoltaic Antimony Chalcogenides. Advanced Science, 2022, 9, .	5.6	16

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37	Spectral Narrowing and Enhancement of Directional Emission of Perovskite Light Emitting Diode by Microcavity. Laser and Photonics Reviews, 2022, 16, .	4.4	9
38	Versatile Sequential Casting Processing for Highly Efficient and Stable Binary Organic Photovoltaics. Advanced Materials, 2022, 34, .	11.1	52
39	Symmetry Breaking in Monometallic Nanocrystals toward Broadband and Direct Electron Transfer Enhanced Plasmonic Photocatalysis. Advanced Functional Materials, 2021, 31, 2006738.	7.8	10
40	Intrinsically Chemo- and Thermostable Electron Acceptors for Efficient Organic Solar Cells. Bulletin of the Chemical Society of Japan, 2021, 94, 183-190.	2.0	22
41	Understanding of the Nearly Linear Tunable Open-Circuit Voltages in Ternary Organic Solar Cells Based on Two Non-fullerene Acceptors. Journal of Physical Chemistry Letters, 2021, 12, 151-156.	2.1	14
42	19.34â€‰â€‰cm² large-area quaternary organic photovoltaic module with 12.36% certified efficiency. Photonics Research, 2021, 9, 324.	3.4	20
43	Transient Optical Modulation of Two-Dimensional Materials by Excitons at Ultimate Proximity. ACS Nano, 2021, 15, 5495-5501.	7.3	10
44	Highâ€Efficiency Organic Photovoltaics using Eutectic Acceptor Fibrils to Achieve Current Amplification. Advanced Materials, 2021, 33, e2007177.	11.1	111
45	Momentarily trapped exciton polaron in two-dimensional lead halide perovskites. Nature Communications, 2021, 12, 1400.	5.8	63
46	Manipulating Crystallization Kinetics of Conjugated Polymers in Nonfullerene Photovoltaic Blends toward Refined Morphologies and Higher Performances. Macromolecules, 2021, 54, 4030-4041.	2.2	16
47	Ultrafast Electron Transfer with Long-Lived Charge Separation and Spin Polarization in WSe₂/C₆₀ Heterojunction. Journal of Physical Chemistry Letters, 2021, 12, 3691-3697.	2.1	18
48	One-Dimensional Superlattice Heterostructure Library. Journal of the American Chemical Society, 2021, 143, 7013-7020.	6.6	16
49	High-performance and eco-friendly semitransparent organic solar cells for greenhouse applications. Joule, 2021, 5, 945-957.	11.7	171
50	Simple Nonâ€Fused Electron Acceptors Leading to Efficient Organic Photovoltaics. Angewandte Chemie, 2021, 133, 13074-13080.	1.6	18
51	Narrowband Nearâ€Infrared Photodetector Enabled by Dual Functional Internalâ€Filterâ€Induced Selective Charge Collection. Advanced Optical Materials, 2021, 9, 2100288.	3.6	26
52	Molecular insights of exceptionally photostable electron acceptors for organic photovoltaics. Nature Communications, 2021, 12, 3049.	5.8	97
53	Efficient Charge Transport Enables High Efficiency in Dilute Donor Organic Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 5039-5044.	2.1	41
54	Organic Solar Cells: Highâ€Efficiency Organic Photovoltaics using Eutectic Acceptor Fibrils to Achieve Current Amplification (Adv. Mater. 18/2021). Advanced Materials, 2021, 33, 2170142.	11.1	1

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55	Simple Nonâ€Fused Electron Acceptors Leading to Efficient Organic Photovoltaics. Angewandte Chemie - International Edition, 2021, 60, 12964-12970.	7.2	172
56	Highly Resolved and Robust Dynamic Xâ€Ray Imaging Using Perovskite Glassâ€Ceramic Scintillator with Reduced Light Scattering. Advanced Science, 2021, 8, e2003728.	5.6	128
57	Exploring the Charge Dynamics and Energy Loss in Ternary Organic Solar Cells with a Fill Factor Exceeding 80%. Advanced Energy Materials, 2021, 11, 2101338.	10.2	62
58	Characterizations and Understanding of Additives Induced Passivation Effects in Narrow-Bandgap Snâ€“Pb Alloyed Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 12560-12567.	1.5	6
59	Highly Efficient and Thickness Insensitive Inverted Triple-Cation Perovskite Solar Cells Fabricated by Gas Pumping Method. Journal of Physical Chemistry Letters, 2021, 12, 5580-5586.	2.1	6
60	Triplet exciton formation for non-radiative voltage loss in high-efficiency nonfullerene organic solar cells. Joule, 2021, 5, 1832-1844.	11.7	98
61	Unveiling structure-performance relationships from multi-scales in non-fullerene organic photovoltaics. Nature Communications, 2021, 12, 4627.	5.8	98
62	Boosting photoelectrochemical efficiency by near-infrared-active lattice-matched morphological heterojunctions. Nature Communications, 2021, 12, 4296.	5.8	23
63	A conjugated donor-acceptor block copolymer enables over 11% efficiency for single-component polymer solar cells. Joule, 2021, 5, 1800-1815.	11.7	77
64	Marcus Hole Transfer Governs Charge Generation and Device Operation in Nonfullerene Organic Solar Cells. ACS Energy Letters, 2021, 6, 2971-2981.	8.8	41
65	Ultrafast Singlet Energy Transfer before Fission in a Tetracene/WSe₂ Type II Hybrid Heterostructure. Journal of Physical Chemistry Letters, 2021, 12, 8440-8446.	2.1	14
66	Deciphering asymmetric charge transfer at transition metal dichalcogenideâ€“graphene interface by helicity-resolved ultrafast spectroscopy. Science Advances, 2021, 7, .	4.7	16
67	A Benzobis(thiazole)-Based Wide Bandgap Polymer Donor Enables over 15% Efficiency Organic Photovoltaics with a Flat Energetic Offset. Macromolecules, 2021, 54, 7862-7869.	2.2	17
68	Near-Unity-Efficiency Energy Transfer from Perovskite to Monolayer Semiconductor through Long-Range Migration and Asymmetric Interfacial Transfer. ACS Applied Materials & Interfaces, 2021, 13, 41895-41903.	4.0	10
69	18.02% Efficiency ternary organic solar cells with a small-molecular donor third component. Chemical Engineering Journal, 2021, 424, 130397.	6.6	46
70	Single-layered organic photovoltaics with double cascading charge transport pathways: 18% efficiencies. Nature Communications, 2021, 12, 309.	5.8	509
71	Regulating Favorable Morphology Evolution by a Simple Liquid-Crystalline Small Molecule Enables Organic Solar Cells with over 17% Efficiency and a Remarkable J_{sc} of 26.56 mA/cm². Chemistry of Materials, 2021, 33, 430-440.	3.2	49
72	Controlling Photocarrier Lifetime in Graphene for Enhanced Photocurrent Generation via Cascade Hot Electron Transfer. Journal of Physical Chemistry Letters, 2021, 12, 9989-9994.	2.1	6

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73	Tailoring the electron and hole dimensionality to achieve efficient and stable metal halide perovskite scintillators. Nanophotonics, 2021, 10, 2249-2256.	2.9	16
74	Uncovering the out-of-plane nanomorphology of organic photovoltaic bulk heterojunction by GTSAXS. Nature Communications, 2021, 12, 6226.	5.8	23
75	Accurate Determination of the Minimum HOMO Offset for Efficient Charge Generation using Organic Semiconducting Alloys. Advanced Energy Materials, 2020, 10, 1903298.	10.2	92
76	Subtle Molecular Tailoring Induces Significant Morphology Optimization Enabling over 16% Efficiency Organic Solar Cells with Efficient Charge Generation. Advanced Materials, 2020, 32, e1906324.	11.1	312
77	Photophysics, morphology and device performances correlation on non-fullerene acceptor based binary and ternary solar cells. Journal of Energy Chemistry, 2020, 47, 180-187.	7.1	21
78	Realizing High Efficiency over 20% of Lowâ€Bandgap Pbâ€“Snâ€Alloyed Perovskite Solar Cells by In Situ Reduction of Sn⁴⁺. Solar Rrl, 2020, 4, 1900467.	3.1	65
79	High-efficiency organic solar cells with low voltage-loss of 0.46 V. Chinese Chemical Letters, 2020, 31, 1991-1996.	4.8	24
80	Highly Efficient Multiple Exciton Generation and Harvesting in Few-Layer Black Phosphorus and Heterostructure. Nano Letters, 2020, 20, 8212-8219.	4.5	11
81	Two-dimensional perovskite solar cells with high luminescence and ultra-low open-circuit voltage deficit. Journal of Materials Chemistry A, 2020, 8, 22175-22180.	5.2	9
82	Unraveling the Crystallization Kinetics of 2D Perovskites with Sandwichâ€Type Structure for Highâ€Performance Photovoltaics. Advanced Materials, 2020, 32, e2002784.	11.1	52
83	Infrared driven hot electron generation and transfer from non-noble metal plasmonic nanocrystals. Nature Communications, 2020, 11, 2944.	5.8	33
84	Dynamic polaronic screening for anomalous exciton spin relaxation in two-dimensional lead halide perovskites. Science Advances, 2020, 6, .	4.7	47
85	Shelfâ€Stable Quantumâ€Dot Lightâ€Emitting Diodes with High Operational Performance. Advanced Materials, 2020, 32, e2006178.	11.1	68
86	Efficient hot-electron extraction in two-dimensional semiconductor heterostructures by ultrafast resonant transfer. Journal of Chemical Physics, 2020, 153, 044705.	1.2	15
87	Near infrared electron acceptors with a photoresponse beyond 1000 nm for highly efficient organic solar cells. Journal of Materials Chemistry A, 2020, 8, 18154-18161.	5.2	49
88	Stable Quasiâ€2D Perovskite Solar Cells with Efficiency over 18% Enabled by Heatâ€“Light Coâ€Treatment. Advanced Functional Materials, 2020, 30, 2004188.	7.8	54
89	Highâ€Efficiency Ternary Organic Solar Cells Based on the Synergized Polymeric and Smallâ€Molecule Donors. Solar Rrl, 2020, 4, 2000537.	3.1	16
90	Pillar[5]arene-Based Solid-State Supramolecular Polymers with Suppressed Aggregation-Caused Quenching Effects and Two-Photon Excited Emission. Journal of the American Chemical Society, 2020, 142, 16557-16561.	6.6	54

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91	Subâ€3Ânm Aluminum Nanocrystals Exhibiting Clusterâ€Like Optical Properties. Small, 2020, 17, 2002524.	5.2	9
92	Bidirectional mid-infrared communications between two identical macroscopic graphene fibres. Nature Communications, 2020, 11, 6368.	5.8	32
93	Ultrahigh-Speed Mid-Infrared Photodetectors With 2-D Electron Gas in a CdTe/PbTe Heterojunction. IEEE Transactions on Electron Devices, 2020, 67, 2432-2436.	1.6	5
94	Edge activation of an inert polymeric carbon nitride matrix with boosted absorption kinetics and near-infrared response for efficient photocatalytic CO₂ reduction. Journal of Materials Chemistry A, 2020, 8, 11761-11772.	5.2	42
95	Asymmetric Electron Acceptors for Highâ€Efficiency and Lowâ€Energyâ€Loss Organic Photovoltaics. Advanced Materials, 2020, 32, e2001160.	11.1	246
96	Nonâ€Fullerene Acceptors: Efficient Organic Solar Cell with 16.88% Efficiency Enabled by Refined Acceptor Crystallization and Morphology with Improved Charge Transfer and Transport Properties (Adv. Energy Mater. 18/2020). Advanced Energy Materials, 2020, 10, 2070083.	10.2	3
97	Enhancement of MoTe2 near-infrared absorption with gold hollow nanorods for photodetection. Nano Research, 2020, 13, 1636-1643.	5.8	21
98	Structural distortion and electron redistribution in dual-emitting gold nanoclusters. Nature Communications, 2020, 11, 2897.	5.8	42
99	Controlling Exciton and Valley Dynamics in Two-Dimensional Heterostructures with Atomically Precise Interlayer Proximity. ACS Nano, 2020, 14, 4618-4625.	7.3	44
100	Efficient Organic Solar Cell with 16.88% Efficiency Enabled by Refined Acceptor Crystallization and Morphology with Improved Charge Transfer and Transport Properties. Advanced Energy Materials, 2020, 10, 1904234.	10.2	402
101	Low-dose real-time X-ray imaging with nontoxic double perovskite scintillators. Light: Science and Applications, 2020, 9, 112.	7.7	272
102	Highâ€Performance Semitransparent Organic Solar Cells with Excellent Infrared Reflection and Seeâ€Through Functions. Advanced Materials, 2020, 32, e2001621.	11.1	140
103	Efficient and Reproducible Monolithic Perovskite/Organic Tandem Solar Cells with Low-Loss Interconnecting Layers. Joule, 2020, 4, 1594-1606.	11.7	116
104	Ultrafast Electron Transfer Before Singlet Fission and Slow Triplet State Electron Transfer in Pentacene Single Crystal/C60 Heterostructure. Journal of Physical Chemistry A, 2020, 124, 4185-4192.	1.1	11
105	Highly Efficient Allâ€Smallâ€Molecule Organic Solar Cells with Appropriate Active Layer Morphology by Side Chain Engineering of Donor Molecules and Thermal Annealing. Advanced Materials, 2020, 32, e1908373.	11.1	162
106	Ultrafast Hole Transfer and Carrier Transport Controlled by Nanoscale-Phase Morphology in Nonfullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 3226-3233.	2.1	94
107	Graphene/Î±-In₂Se₃ heterostructure for ultrafast nonlinear optical applications. Optical Materials Express, 2020, 10, 2723.	1.6	3
108	Efficient blue light-emitting diodes based on quantum-confined bromide perovskite nanostructures. Nature Photonics, 2019, 13, 760-764.	15.6	483

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109	Ultrafast and broadband optical nonlinearity in aluminum doped zinc oxide colloidal nanocrystals. Nanoscale, 2019, 11, 13988-13995.	2.8	22
110	Submillimeter and lead-free Cs₃Sb₂Br₉perovskite nanoflakes: inverse temperature crystallization growth and application for ultrasensitive photodetectors. Nanoscale Horizons, 2019, 4, 1372-1379.	4.1	85
111	Power Conversion Efficiency Enhancement of Low-Bandgap Mixed Pbâ€“Sn Perovskite Solar Cells by Improved Interfacial Charge Transfer. ACS Energy Letters, 2019, 4, 1784-1790.	8.8	76
112	Heavily Doped Semiconductor Colloidal Nanocrystals as Ultra-Broadband Switches for Near-Infrared and Mid-Infrared Pulse Lasers. ACS Applied Materials & Interfaces, 2019, 11, 40416-40423.	4.0	14
113	A mutually stabilized host-guest pair. Science Advances, 2019, 5, eaax6707.	4.7	9
114	Fast Photoelectric Conversion in the Nearâ€Infrared Enabled by Plasmonâ€Induced Hotâ€Electron Transfer. Advanced Materials, 2019, 31, e1903829.	11.1	44
115	Revealing the Critical Role of the HOMO Alignment on Maximizing Current Extraction and Suppressing Energy Loss in Organic Solar Cells. IScience, 2019, 19, 883-893.	1.9	68
116	Control of aggregation and dissolution of small molecule hole transport layers via a doping strategy for highly efficient perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 11932-11942.	2.7	8
117	Lattice-Mismatched PbTe/ZnTe Heterostructure with High-Speed Midinfrared Photoresponses. ACS Applied Materials & Interfaces, 2019, 11, 39342-39350.	4.0	16
118	Ultrafast self-trapping of photoexcited carriers sets the upper limit on antimony trisulfide photovoltaic devices. Nature Communications, 2019, 10, 4540.	5.8	117
119	Highly Efficient Fullerene-Free Organic Solar Cells Operate at Near Zero Highest Occupied Molecular Orbital Offsets. Journal of the American Chemical Society, 2019, 141, 3073-3082.	6.6	362
120	Ultrafast Energy Transfer of Both Bright and Dark Excitons in 2D van der Waals Heterostructures Beyond Dipolar Coupling. ACS Nano, 2019, 13, 2341-2348.	7.3	44
121	Metal halide perovskite nanostructures for optoelectronic applications and the study of physical properties. Nature Reviews Materials, 2019, 4, 169-188.	23.3	598
122	Highly sensitive X-ray detector made of layered perovskite-like (NH4)3Bi2I9 single crystal with anisotropic response. Nature Photonics, 2019, 13, 602-608.	15.6	391
123	Real-Time Observing Ultrafast Carrier and Phonon Dynamics in Colloidal Tin Chalcogenide van der Waals Nanosheets. Journal of Physical Chemistry Letters, 2019, 10, 3750-3755.	2.1	13
124	Photoexcitation-controlled self-recoverable molecular aggregation for flicker phosphorescence. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4816-4821.	3.3	95
125	High-Efficiency Red Light-Emitting Diodes Based on Multiple Quantum Wells of Phenylbutylammonium-Cesium Lead Iodide Perovskites. ACS Photonics, 2019, 6, 587-594.	3.2	69
126	Tuning terminal aromatics of electron acceptors to achieve high-efficiency organic solar cells. Journal of Materials Chemistry A, 2019, 7, 27632-27639.	5.2	86

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127	Quantum Confinement-Tunable Ultrafast Charge Transfer in a PbS Quantum Dots/WSe₂ 0Dâ€“2D Hybrid Structure: Transition from the Weak to Strong Coupling Regime. Journal of Physical Chemistry Letters, 2019, 10, 7665-7671.	2.1	25
128	Highly efficient hot electron harvesting from graphene before electron-hole thermalization. Science Advances, 2019, 5, eaax9958.	4.7	79
129	Highly compact and smooth all-inorganic perovskite films for low threshold amplified spontaneous emission from additive-assisted solution processing. Journal of Materials Chemistry C, 2019, 7, 15350-15356.	2.7	13
130	Dielectric Environment-Robust Ultrafast Charge Transfer Between Two Atomic Layers. Journal of Physical Chemistry Letters, 2019, 10, 150-155.	2.1	40
131	Pulsed axial epitaxy of colloidal quantum dots in nanowires enables facet-selective passivation. Nature Communications, 2018, 9, 4947.	5.8	22
132	Supramolecular Solid-State Microlaser Constructed from Pillar[5]arene-Based Hostâ€“Guest Complex Microcrystals. Journal of the American Chemical Society, 2018, 140, 15651-15654.	6.6	71
133	Interfacial Charge Transfer Circumventing Momentum Mismatch at Two-Dimensional van der Waals Heterojunctions. Nano Letters, 2017, 17, 3591-3598.	4.5	172
134	Organic Cations Might Not Be Essential to the Remarkable Properties of Band Edge Carriers in Lead Halide Perovskites. Advanced Materials, 2017, 29, 1603072.	11.1	166
135	Charge Transfer Dynamics from Photoexcited Semiconductor Quantum Dots. Annual Review of Physical Chemistry, 2016, 67, 259-281.	4.8	156
136	Screening in crystalline liquids protects energetic carriers in hybrid perovskites. Science, 2016, 353, 1409-1413.	6.0	655
137	Broad Wavelength Tunable Robust Lasing from Single-Crystal Nanowires of Cesium Lead Halide Perovskites (CsPbX₃, X = Cl, Br, I). ACS Nano, 2016, 10, 7963-7972.	7.3	507
138	Persistent Energetic Electrons in Methylammonium Lead Iodide Perovskite Thin Films. Journal of the American Chemical Society, 2016, 138, 15717-15726.	6.6	107
139	Geometry strategy for engineering the recombination possibility of excitons in nanowires. Nanoscale, 2016, 8, 7318-7325.	2.8	0
140	Nanowire Lasers of Formamidinium Lead Halide Perovskites and Their Stabilized Alloys with Improved Stability. Nano Letters, 2016, 16, 1000-1008.	4.5	391
141	Charge Transfer Excitons at van der Waals Interfaces. Journal of the American Chemical Society, 2015, 137, 8313-8320.	6.6	252
142	Ultrafast Exciton Dynamics and Light-Driven H₂ Evolution in Colloidal Semiconductor Nanorods and Pt-Tipped Nanorods. Accounts of Chemical Research, 2015, 48, 851-859.	7.6	169
143	Trap States in Lead Iodide Perovskites. Journal of the American Chemical Society, 2015, 137, 2089-2096.	6.6	813
144	Lead halide perovskite nanowire lasers with low lasing thresholds and high quality factors. Nature Materials, 2015, 14, 636-642.	13.3	2,392

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145	Strain-Induced Stereoselective Formation of Blue-Emitting Cyclostilbenes. Journal of the American Chemical Society, 2015, 137, 12282-12288.	6.6	20
146	Molecular helices as electron acceptors in high-performance bulk heterojunction solar cells. Nature Communications, 2015, 6, 8242.	5.8	525
147	Auger-Assisted Electron Transfer from Photoexcited Semiconductor Quantum Dots. Nano Letters, 2014, 14, 1263-1269.	4.5	197
148	Wavelength dependent efficient photoreduction of redox mediators using type II ZnSe/CdS nanorod heterostructures. Chemical Science, 2014, 5, 3905-3914.	3.7	26
149	Charging of Quantum Dots by Sulfide Redox Electrolytes Reduces Electron Injection Efficiency in Quantum Dot Sensitized Solar Cells. Journal of the American Chemical Society, 2013, 135, 11461-11464.	6.6	59
150	Multiexciton Annihilation and Dissociation in Quantum Confined Semiconductor Nanocrystals. Accounts of Chemical Research, 2013, 46, 1270-1279.	7.6	96
151	Near Unity Quantum Yield of Light-Driven Redox Mediator Reduction and Efficient H₂ Generation Using Colloidal Nanorod Heterostructures. Journal of the American Chemical Society, 2012, 134, 11701-11708.	6.6	237
152	Wave Function Engineering for Efficient Extraction of up to Nineteen Electrons from One CdSe/CdS Quasi-Type II Quantum Dot. Journal of the American Chemical Society, 2012, 134, 4250-4257.	6.6	205
153	Wavefunction engineering in quantum confined semiconductor nanoheterostructures for efficient charge separation and solar energy conversion. Energy and Environmental Science, 2012, 5, 9406.	15.6	120
154	Light-Driven, Quantum Dot-Mediated Regeneration of FMN To Drive Reduction of Ketoisophorone by Old Yellow Enzyme. ACS Catalysis, 2012, 2, 667-670.	5.5	47
155	Enhanced Multiple Exciton Dissociation from CdSe Quantum Rods: The Effect of Nanocrystal Shape. Journal of the American Chemical Society, 2012, 134, 11289-11297.	6.6	134
156	Wave Function Engineering for Ultrafast Charge Separation and Slow Charge Recombination in Type II Core/Shell Quantum Dots. Journal of the American Chemical Society, 2011, 133, 8762-8771.	6.6	213
157	Controlling Charge Separation and Recombination Rates in CdSe/ZnS Type I Coreâ^'Shell Quantum Dots by Shell Thicknesses. Journal of the American Chemical Society, 2010, 132, 15038-15045.	6.6	379
158	Spread of in-plane anisotropy in CsPbBr₃/ReS₂ heterostructures by proximity effect. Journal of Materials Chemistry C, 0, , .	2.7	4