

Haiming Zhu

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146
papers

11,187
citations

45
h-index

105
g-index

164
ext. papers

14,602
ext. citations

15.6
avg, IF

6.71
L-index

#	Paper	IF	Citations
146	Lead halide perovskite nanowire lasers with low lasing thresholds and high quality factors. <i>Nature Materials</i> , 2015 , 14, 636-42	27	1984
145	Trap states in lead iodide perovskites. <i>Journal of the American Chemical Society</i> , 2015 , 137, 2089-96	16.4	672
144	Screening in crystalline liquids protects energetic carriers in hybrid perovskites. <i>Science</i> , 2016 , 353, 1409-13	34.3	518
143	Molecular helices as electron acceptors in high-performance bulk heterojunction solar cells. <i>Nature Communications</i> , 2015 , 6, 8242	17.4	475
142	Broad Wavelength Tunable Robust Lasing from Single-Crystal Nanowires of Cesium Lead Halide Perovskites (CsPbX ₃ , X = Cl, Br, I). <i>ACS Nano</i> , 2016 , 10, 7963-72	16.7	414
141	Metal halide perovskite nanostructures for optoelectronic applications and the study of physical properties. <i>Nature Reviews Materials</i> , 2019 , 4, 169-188	73.3	361
140	Nanowire Lasers of Formamidinium Lead Halide Perovskites and Their Stabilized Alloys with Improved Stability. <i>Nano Letters</i> , 2016 , 16, 1000-8	11.5	337
139	Controlling charge separation and recombination rates in CdSe/ZnS type I core-shell quantum dots by shell thicknesses. <i>Journal of the American Chemical Society</i> , 2010 , 132, 15038-45	16.4	327
138	Efficient blue light-emitting diodes based on quantum-confined bromide perovskite nanostructures. <i>Nature Photonics</i> , 2019 , 13, 760-764	33.9	313
137	Single-layered organic photovoltaics with double cascading charge transport pathways: 18% efficiencies. <i>Nature Communications</i> , 2021 , 12, 309	17.4	302
136	Efficient Organic Solar Cell with 16.88% Efficiency Enabled by Refined Acceptor Crystallization and Morphology with Improved Charge Transfer and Transport Properties. <i>Advanced Energy Materials</i> , 2020 , 10, 1904234	21.8	252
135	Highly Efficient Fullerene-Free Organic Solar Cells Operate at Near Zero Highest Occupied Molecular Orbital Offsets. <i>Journal of the American Chemical Society</i> , 2019 , 141, 3073-3082	16.4	251
134	Highly sensitive X-ray detector made of layered perovskite-like (NH ₄) ₃ Bi ₂ I ₉ single crystal with anisotropic response. <i>Nature Photonics</i> , 2019 , 13, 602-608	33.9	217
133	Near unity quantum yield of light-driven redox mediator reduction and efficient H ₂ generation using colloidal nanorod heterostructures. <i>Journal of the American Chemical Society</i> , 2012 , 134, 11701-8	16.4	207
132	Subtle Molecular Tailoring Induces Significant Morphology Optimization Enabling over 16% Efficiency Organic Solar Cells with Efficient Charge Generation. <i>Advanced Materials</i> , 2020 , 32, e1906324	24	203
131	Charge Transfer Excitons at van der Waals Interfaces. <i>Journal of the American Chemical Society</i> , 2015 , 137, 8313-20	16.4	201
130	Wave function engineering for ultrafast charge separation and slow charge recombination in type II core/shell quantum dots. <i>Journal of the American Chemical Society</i> , 2011 , 133, 8762-71	16.4	183

129	Wave function engineering for efficient extraction of up to nineteen electrons from one CdSe/CdS quasi-type II quantum dot. <i>Journal of the American Chemical Society</i> , 2012 , 134, 4250-7	16.4	178
128	Asymmetric Electron Acceptors for High-Efficiency and Low-Energy-Loss Organic Photovoltaics. <i>Advanced Materials</i> , 2020 , 32, e2001160	24	162
127	Auger-assisted electron transfer from photoexcited semiconductor quantum dots. <i>Nano Letters</i> , 2014 , 14, 1263-9	11.5	160
126	Single-junction organic solar cells with over 19% efficiency enabled by a refined double-fibril network morphology.. <i>Nature Materials</i> , 2022 ,	27	157
125	Ultrafast exciton dynamics and light-driven H ₂ evolution in colloidal semiconductor nanorods and Pt-tipped nanorods. <i>Accounts of Chemical Research</i> , 2015 , 48, 851-9	24.3	143
124	Organic Cations Might Not Be Essential to the Remarkable Properties of Band Edge Carriers in Lead Halide Perovskites. <i>Advanced Materials</i> , 2017 , 29, 1603072	24	138
123	Low-dose real-time X-ray imaging with nontoxic double perovskite scintillators. <i>Light: Science and Applications</i> , 2020 , 9, 112	16.7	127
122	Interfacial Charge Transfer Circumventing Momentum Mismatch at Two-Dimensional van der Waals Heterojunctions. <i>Nano Letters</i> , 2017 , 17, 3591-3598	11.5	122
121	Wavefunction engineering in quantum confined semiconductor nanoheterostructures for efficient charge separation and solar energy conversion. <i>Energy and Environmental Science</i> , 2012 , 5, 9406	35.4	114
120	Enhanced multiple exciton dissociation from CdSe quantum rods: the effect of nanocrystal shape. <i>Journal of the American Chemical Society</i> , 2012 , 134, 11289-97	16.4	114
119	Charge Transfer Dynamics from Photoexcited Semiconductor Quantum Dots. <i>Annual Review of Physical Chemistry</i> , 2016 , 67, 259-81	15.7	114
118	Highly Efficient All-Small-Molecule Organic Solar Cells with Appropriate Active Layer Morphology by Side Chain Engineering of Donor Molecules and Thermal Annealing. <i>Advanced Materials</i> , 2020 , 32, e1908373	24	100
117	Persistent Energetic Electrons in Methylammonium Lead Iodide Perovskite Thin Films. <i>Journal of the American Chemical Society</i> , 2016 , 138, 15717-15726	16.4	86
116	High-Performance Semitransparent Organic Solar Cells with Excellent Infrared Reflection and See-Through Functions. <i>Advanced Materials</i> , 2020 , 32, e2001621	24	82
115	Multiexciton annihilation and dissociation in quantum confined semiconductor nanocrystals. <i>Accounts of Chemical Research</i> , 2013 , 46, 1270-9	24.3	80
114	Single-Junction Organic Solar Cells with 19.17% Efficiency Enabled by Introducing One Asymmetric Guest Acceptor.. <i>Advanced Materials</i> , 2022 , e2110147	24	71
113	Ultrafast self-trapping of photoexcited carriers sets the upper limit on antimony trisulfide photovoltaic devices. <i>Nature Communications</i> , 2019 , 10, 4540	17.4	66
112	Efficient and Reproducible Monolithic Perovskite/Organic Tandem Solar Cells with Low-Loss Interconnecting Layers. <i>Joule</i> , 2020 , 4, 1594-1606	27.8	57

111	Tuning terminal aromatics of electron acceptors to achieve high-efficiency organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 27632-27639	13	57
110	Accurate Determination of the Minimum HOMO Offset for Efficient Charge Generation using Organic Semiconducting Alloys. <i>Advanced Energy Materials</i> , 2020 , 10, 1903298	21.8	56
109	Simple Non-Fused Electron Acceptors Leading to Efficient Organic Photovoltaics. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 12964-12970	16.4	56
108	High-Efficiency Organic Photovoltaics using Eutectic Acceptor Fibrils to Achieve Current Amplification. <i>Advanced Materials</i> , 2021 , 33, e2007177	24	52
107	Submillimeter and lead-free Cs ₃ Sb ₂ Br ₉ perovskite nanoflakes: inverse temperature crystallization growth and application for ultrasensitive photodetectors. <i>Nanoscale Horizons</i> , 2019 , 4, 1372-1379	10.8	51
106	Charging of quantum dots by sulfide redox electrolytes reduces electron injection efficiency in quantum dot sensitized solar cells. <i>Journal of the American Chemical Society</i> , 2013 , 135, 11461-4	16.4	51
105	Highly efficient hot electron harvesting from graphene before electron-hole thermalization. <i>Science Advances</i> , 2019 , 5, eaax9958	14.3	50
104	Supramolecular Solid-State Microlaser Constructed from Pillar[5]arene-Based Host-Guest Complex Microcrystals. <i>Journal of the American Chemical Society</i> , 2018 , 140, 15651-15654	16.4	50
103	High-performance and eco-friendly semitransparent organic solar cells for greenhouse applications. <i>Joule</i> , 2021 , 5, 945-957	27.8	49
102	Photoexcitation-controlled self-recoverable molecular aggregation for flicker phosphorescence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 4816-4821	11.5	48
101	Power Conversion Efficiency Enhancement of Low-Bandgap Mixed Pb _{1-x} Sn _x Perovskite Solar Cells by Improved Interfacial Charge Transfer. <i>ACS Energy Letters</i> , 2019 , 4, 1784-1790	20.1	44
100	High-Efficiency Red Light-Emitting Diodes Based on Multiple Quantum Wells of Phenylbutylammonium-Cesium Lead Iodide Perovskites. <i>ACS Photonics</i> , 2019 , 6, 587-594	6.3	44
99	Light-Driven, Quantum Dot-Mediated Regeneration of FMN To Drive Reduction of Ketoisophorone by Old Yellow Enzyme. <i>ACS Catalysis</i> , 2012 , 2, 667-670	13.1	43
98	Revealing the Critical Role of the HOMO Alignment on Maximizing Current Extraction and Suppressing Energy Loss in Organic Solar Cells. <i>iScience</i> , 2019 , 19, 883-893	6.1	42
97	Ultrafast Hole Transfer and Carrier Transport Controlled by Nanoscale-Phase Morphology in Nonfullerene Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 3226-3233	6.4	42
96	Realizing High Efficiency over 20% of Low-Bandgap Pb _{1-x} Sn _x -Alloyed Perovskite Solar Cells by In Situ Reduction of Sn ⁴⁺ . <i>Solar Rrl</i> , 2020 , 4, 1900467	7.1	40
95	Highly Resolved and Robust Dynamic X-Ray Imaging Using Perovskite Glass-Ceramic Scintillator with Reduced Light Scattering. <i>Advanced Science</i> , 2021 , 8, e2003728	13.6	39
94	Thermally activated delayed fluorescence (TADF) organic molecules for efficient X-ray scintillation and imaging. <i>Nature Materials</i> , 2021 ,	27	31

93	Stable Quasi-2D Perovskite Solar Cells with Efficiency over 18% Enabled by Heat/Light Co-Treatment. <i>Advanced Functional Materials</i> , 2020 , 30, 2004188	15.6	31
92	Triplet exciton formation for non-radiative voltage loss in high-efficiency nonfullerene organic solar cells. <i>Joule</i> , 2021 , 5, 1832-1844	27.8	30
91	Unveiling structure-performance relationships from multi-scales in non-fullerene organic photovoltaics. <i>Nature Communications</i> , 2021 , 12, 4627	17.4	29
90	Desired open-circuit voltage increase enables efficiencies approaching 19% in symmetric-asymmetric molecule ternary organic photovoltaics. <i>Joule</i> , 2022 , 6, 662-675	27.8	29
89	Ultrafast Energy Transfer of Both Bright and Dark Excitons in 2D van der Waals Heterostructures Beyond Dipolar Coupling. <i>ACS Nano</i> , 2019 , 13, 2341-2348	16.7	28
88	Dielectric Environment-Robust Ultrafast Charge Transfer Between Two Atomic Layers. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 150-155	6.4	28
87	High-Performance Organic Solar Cells from Non-Halogenated Solvents. <i>Advanced Functional Materials</i> , 2022 , 32, 2107827	15.6	27
86	Near infrared electron acceptors with a photoresponse beyond 1000 nm for highly efficient organic solar cells. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 18154-18161	13	27
85	A conjugated donor-acceptor block copolymer enables over 11% efficiency for single-component polymer solar cells. <i>Joule</i> , 2021 , 5, 1800-1815	27.8	27
84	Fast Photoelectric Conversion in the Near-Infrared Enabled by Plasmon-Induced Hot-Electron Transfer. <i>Advanced Materials</i> , 2019 , 31, e1903829	24	26
83	Pillar[5]arene-Based Solid-State Supramolecular Polymers with Suppressed Aggregation-Caused Quenching Effects and Two-Photon Excited Emission. <i>Journal of the American Chemical Society</i> , 2020 , 142, 16557-16561	16.4	26
82	Wavelength dependent efficient photoreduction of redox mediators using type II ZnSe/CdS nanorod heterostructures. <i>Chemical Science</i> , 2014 , 5, 3905-3914	9.4	25
81	Unraveling the Crystallization Kinetics of 2D Perovskites with Sandwich-Type Structure for High-Performance Photovoltaics. <i>Advanced Materials</i> , 2020 , 32, e2002784	24	25
80	Regulating Favorable Morphology Evolution by a Simple Liquid-Crystalline Small Molecule Enables Organic Solar Cells with over 17% Efficiency and a Remarkable Jsc of 26.56 mA/cm ² . <i>Chemistry of Materials</i> , 2021 , 33, 430-440	9.6	24
79	Edge activation of an inert polymeric carbon nitride matrix with boosted absorption kinetics and near-infrared response for efficient photocatalytic CO ₂ reduction. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 11761-11772	13	23
78	Controlling Exciton and Valley Dynamics in Two-Dimensional Heterostructures with Atomically Precise Interlayer Proximity. <i>ACS Nano</i> , 2020 , 14, 4618-4625	16.7	23
77	Molecular insights of exceptionally photostable electron acceptors for organic photovoltaics. <i>Nature Communications</i> , 2021 , 12, 3049	17.4	23
76	Exploring the Charge Dynamics and Energy Loss in Ternary Organic Solar Cells with a Fill Factor Exceeding 80%. <i>Advanced Energy Materials</i> , 2021 , 11, 2101338	21.8	21

75	Structural distortion and electron redistribution in dual-emitting gold nanoclusters. <i>Nature Communications</i> , 2020 , 11, 2897	17.4	19
74	Shelf-Stable Quantum-Dot Light-Emitting Diodes with High Operational Performance. <i>Advanced Materials</i> , 2020 , 32, e2006178	24	19
73	Momentarily trapped exciton polaron in two-dimensional lead halide perovskites. <i>Nature Communications</i> , 2021 , 12, 1400	17.4	19
72	Strain-induced stereoselective formation of blue-emitting cyclostilbenes. <i>Journal of the American Chemical Society</i> , 2015 , 137, 12282-8	16.4	18
71	Asymmetric electron acceptor enables highly luminescent organic solar cells with certified efficiency over 18%. <i>Nature Communications</i> , 2022 , 13, 2598	17.4	18
70	Infrared driven hot electron generation and transfer from non-noble metal plasmonic nanocrystals. <i>Nature Communications</i> , 2020 , 11, 2944	17.4	17
69	18.02% Efficiency ternary organic solar cells with a small-molecular donor third component. <i>Chemical Engineering Journal</i> , 2021 , 424, 130397	14.7	17
68	Photophysics, morphology and device performances correlation on non-fullerene acceptor based binary and ternary solar cells. <i>Journal of Energy Chemistry</i> , 2020 , 47, 180-187	12	16
67	Dynamic polaronic screening for anomalous exciton spin relaxation in two-dimensional lead halide perovskites. <i>Science Advances</i> , 2020 , 6,	14.3	15
66	Quantum Confinement-Tunable Ultrafast Charge Transfer in a PbS Quantum Dots/WSe 0D-2D Hybrid Structure: Transition from the Weak to Strong Coupling Regime. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 7665-7671	6.4	15
65	Pulsed axial epitaxy of colloidal quantum dots in nanowires enables facet-selective passivation. <i>Nature Communications</i> , 2018 , 9, 4947	17.4	15
64	Compromising Charge Generation and Recombination with Asymmetric Molecule for High-Performance Binary Organic Photovoltaics with Over 18% Certified Efficiency. <i>Advanced Functional Materials</i> , 2112511	15.6	14
63	Efficient Charge Transport Enables High Efficiency in Dilute Donor Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 5039-5044	6.4	14
62	A New End Group on Nonfullerene Acceptors Endows Efficient Organic Solar Cells with Low Energy Losses. <i>Advanced Functional Materials</i> , 2108614	15.6	13
61	Mechanism study on organic ternary photovoltaics with 18.3% certified efficiency: from molecule to device. <i>Energy and Environmental Science</i> ,	35.4	13
60	Narrowband Near-Infrared Photodetector Enabled by Dual Functional Internal-Filter-Induced Selective Charge Collection. <i>Advanced Optical Materials</i> , 2021 , 9, 2100288	8.1	12
59	High-efficiency organic solar cells with low voltage-loss of 0.46 V. <i>Chinese Chemical Letters</i> , 2020 , 31, 1991-1996	8.1	11
58	Marcus Hole Transfer Governs Charge Generation and Device Operation in Nonfullerene Organic Solar Cells. <i>ACS Energy Letters</i> , 2021 , 6, 2971-2981	20.1	11

57	Ultrafast and broadband optical nonlinearity in aluminum doped zinc oxide colloidal nanocrystals. <i>Nanoscale</i> , 2019 , 11, 13988-13995	7.7	10
56	High-Efficiency Ternary Organic Solar Cells Based on the Synergized Polymeric and Small-Molecule Donors. <i>Solar Rrl</i> , 2020 , 4, 2000537	7.1	10
55	Highly compact and smooth all-inorganic perovskite films for low threshold amplified spontaneous emission from additive-assisted solution processing. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 15350-15356	7.1	10
54	Real-Time Observing Ultrafast Carrier and Phonon Dynamics in Colloidal Tin Chalcogenide van der Waals Nanosheets. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 3750-3755	6.4	9
53	Bidirectional mid-infrared communications between two identical macroscopic graphene fibres. <i>Nature Communications</i> , 2020 , 11, 6368	17.4	9
52	Enhancement of MoTe2 near-infrared absorption with gold hollow nanorods for photodetection. <i>Nano Research</i> , 2020 , 13, 1636-1643	10	9
51	Inhibiting excessive molecular aggregation to achieve highly efficient and stabilized organic solar cells by introducing a star-shaped nitrogen heterocyclic-ring acceptor. <i>Energy and Environmental Science</i> ,	35.4	9
50	Understanding of the Nearly Linear Tunable Open-Circuit Voltages in Ternary Organic Solar Cells Based on Two Non-fullerene Acceptors. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 151-156	6.4	9
49	Pushing the Efficiency of High Open-Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning.. <i>Advanced Science</i> , 2022 , e2200578	13.6	9
48	Lattice-Mismatched PbTe/ZnTe Heterostructure with High-Speed Midinfrared Photoresponses. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 39342-39350	9.5	8
47	Uncovering the out-of-plane nanomorphology of organic photovoltaic bulk heterojunction by GTSAXS. <i>Nature Communications</i> , 2021 , 12, 6226	17.4	8
46	Efficient hot-electron extraction in two-dimensional semiconductor heterostructures by ultrafast resonant transfer. <i>Journal of Chemical Physics</i> , 2020 , 153, 044705	3.9	8
45	Ultrafast Electron Transfer with Long-Lived Charge Separation and Spin Polarization in WSe/C Heterojunction. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 3691-3697	6.4	8
44	Deciphering asymmetric charge transfer at transition metal dichalcogenide-graphene interface by helicity-resolved ultrafast spectroscopy. <i>Science Advances</i> , 2021 , 7,	14.3	8
43	Realizing high-performance organic solar cells through precise control of HOMO driving force based on ternary alloy strategy. <i>Journal of Energy Chemistry</i> , 2022 , 65, 133-140	12	8
42	All-Green Solvent-Processed Planar Heterojunction Organic Solar Cells with Outstanding Power Conversion Efficiency of 16%. <i>Advanced Functional Materials</i> , 2107567	15.6	7
41	Sub-31nm Aluminum Nanocrystals Exhibiting Cluster-Like Optical Properties. <i>Small</i> , 2021 , 17, e2002524	11	7
40	1934 cm ² large-area quaternary organic photovoltaic module with 1236% certified efficiency. <i>Photonics Research</i> , 2021 , 9, 324	6	7

39	Control of aggregation and dissolution of small molecule hole transport layers via a doping strategy for highly efficient perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 11932-11942	7.1	6
38	Heavily Doped Semiconductor Colloidal Nanocrystals as Ultra-Broadband Switches for Near-Infrared and Mid-Infrared Pulse Lasers. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 40416-40423	8.5	6
37	Highly Efficient Multiple Exciton Generation and Harvesting in Few-Layer Black Phosphorus and Heterostructure. <i>Nano Letters</i> , 2020 , 20, 8212-8219	11.5	6
36	Two-dimensional perovskite solar cells with high luminescence and ultra-low open-circuit voltage deficit. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 22175-22180	13	6
35	Manipulating Crystallization Kinetics of Conjugated Polymers in Nonfullerene Photovoltaic Blends toward Refined Morphologies and Higher Performances. <i>Macromolecules</i> , 2021 , 54, 4030-4041	5.5	6
34	One-Dimensional Superlattice Heterostructure Library. <i>Journal of the American Chemical Society</i> , 2021 , 143, 7013-7020	16.4	6
33	Intrinsically Chemo- and Thermostable Electron Acceptors for Efficient Organic Solar Cells. <i>Bulletin of the Chemical Society of Japan</i> , 2021 , 94, 183-190	5.1	6
32	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%. <i>Advanced Functional Materials</i> , 2022 , 32, 2110743	15.6	6
31	Characterizations and Understanding of Additives Induced Passivation Effects in Narrow-Bandgap SnBb Alloyed Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 12560-12567	3.8	5
30	n-Doping of photoactive layer in binary organic solar cells realizes over 18.3% efficiency. <i>Nano Energy</i> , 2022 , 96, 107133	17.1	5
29	High-Performance Organic Solar Modules via the Bilayer-Merged-Annealing Assisted Blading Coating. <i>Advanced Materials</i> , 2022 , e2110569	24	5
28	Boosting photoelectrochemical efficiency by near-infrared-active lattice-matched morphological heterojunctions. <i>Nature Communications</i> , 2021 , 12, 4296	17.4	4
27	Ultrafast Electron Transfer Before Singlet Fission and Slow Triplet State Electron Transfer in Pentacene Single Crystal/C Heterostructure. <i>Journal of Physical Chemistry A</i> , 2020 , 124, 4185-4192	2.8	3
26	Controlling Photocarrier Lifetime in Graphene for Enhanced Photocurrent Generation via Cascade Hot Electron Transfer. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 9989-9994	6.4	3
25	Tailoring the electron and hole dimensionality to achieve efficient and stable metal halide perovskite scintillators. <i>Nanophotonics</i> , 2021 , 10, 2249-2256	6.3	3
24	Transient Optical Modulation of Two-Dimensional Materials by Excitons at Ultimate Proximity. <i>ACS Nano</i> , 2021 , 15, 5495-5501	16.7	3
23	Simple Non-Fused Electron Acceptors Leading to Efficient Organic Photovoltaics. <i>Angewandte Chemie</i> , 2021 , 133, 13074-13080	3.6	3
22	Highly Efficient and Thickness Insensitive Inverted Triple-Cation Perovskite Solar Cells Fabricated by Gas Pumping Method. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 5580-5586	6.4	3

21	Symmetry Breaking in Monometallic Nanocrystals toward Broadband and Direct Electron Transfer Enhanced Plasmonic Photocatalysis. <i>Advanced Functional Materials</i> , 2021 , 31, 2006738	15.6	3
20	A Benzobis(thiazole)-Based Wide Bandgap Polymer Donor Enables over 15% Efficiency Organic Photovoltaics with a Flat Energetic Offset. <i>Macromolecules</i> , 2021 , 54, 7862-7869	5.5	3
19	Non-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). <i>Advanced Energy Materials</i> , 2020 , 10, 2070083	21.8	2
18	A mutually stabilized host-guest pair. <i>Science Advances</i> , 2019 , 5, eaax6707	14.3	2
17	Understanding the molecular mechanisms of the differences in the efficiency and stability of all-polymer solar cells. <i>Journal of Materials Chemistry C</i> , 2022 , 10, 1850-1861	7.1	2
16	Spread of in-plane anisotropy in CsPbBr ₃ /ReS ₂ heterostructures by proximity effect. <i>Journal of Materials Chemistry C</i> ,	7.1	2
15	Ultrafast Singlet Energy Transfer before Fission in a Tetracene/WSe Type II Hybrid Heterostructure. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 8440-8446	6.4	2
14	Controllable Anion Doping of Electron Acceptors for High-Efficiency Organic Solar Cells. <i>ACS Energy Letters</i> , 2022 , 7, 1764-1773	20.1	2
13	Correlating Electronic Structure and Device Physics with Mixing Region Morphology in High-Efficiency Organic Solar Cells.. <i>Advanced Science</i> , 2022 , e2104613	13.6	1
12	Photoinduced Charge Transfer and Recombination Dynamics in Star Nonfullerene Organic Solar Cells.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 1123-1130	6.4	1
11	Slot-Die-Coated Organic Solar Cells Optimized through Multistep Crystallization Kinetics. <i>Solar Rrl</i> , 2100740	7.4	1
10	Manipulating the Crystalline Morphology in the Nonfullerene Acceptor Mixture to Improve the Carrier Transport and Suppress the Energetic Disorder. <i>Small Science</i> , 2100092		1
9	Spatiotemporally Coupled Electron-Hole Dynamics in Two Dimensional Heterostructures.. <i>Nano Letters</i> , 2022 ,	11.5	1
8	Revealing the Sole Impact of Acceptor's Molecular Conformation to Energy Loss and Device Performance of Organic Solar Cells through Positional Isomers.. <i>Advanced Science</i> , 2022 , e2103428	13.6	1
7	Ultrahigh-Speed Mid-Infrared Photodetectors With 2-D Electron Gas in a CdTe/PbTe Heterojunction. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 2432-2436	2.9	0
6	Graphene/Bn ₂ Se ₃ heterostructure for ultrafast nonlinear optical applications. <i>Optical Materials Express</i> , 2020 , 10, 2723	2.6	0
5	Efficient quasi-stationary charge transfer from quantum dots to acceptors physically-adsorbed in the ligand monolayer. <i>Nano Research</i> , 1	10	0
4	Near-Unity-Efficiency Energy Transfer from Perovskite to Monolayer Semiconductor through Long-Range Migration and Asymmetric Interfacial Transfer. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 41895-41903	9.5	0

- 3 Controlling exciton-exciton annihilation in WSe₂ bilayers via interlayer twist. *Nano Research*, **2022**, 15, 4661 10 0
- 2 Geometry strategy for engineering the recombination possibility of excitons in nanowires. *Nanoscale*, **2016**, 8, 7318-25 7-7
- 1 Organic Solar Cells: High-Efficiency Organic Photovoltaics using Eutectic Acceptor Fibrils to Achieve Current Amplification (Adv. Mater. 18/2021). *Advanced Materials*, **2021**, 33, 2170142 24