# Feng Gao

List of Publications by Year
in descending order



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|---|---|---|---|
| 238 papers | 37,614 citations | 3334<br>91 h-index | 2953<br>189 g-index |
| 240 all docs | 240 docs citations | 240 times ranked | 20046 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Organic solar cells based on non-fullerene acceptors. Nature Materials, 2018, 17, 119-128. | 27.5 | 2,315 |
| 2 | Fullereneâ€Free Polymer Solar Cells with over 11% Efficiency and Excellent Thermal Stability. Advanced Materials, 2016, 28, 4734-4739. | 21.0 | 1,698 |
| 3 | Perovskite light-emitting diodes based on solution-processed self-organized multiple quantum wells. Nature Photonics, 2016, 10, 699-704. | 31.4 | 1,535 |
| 4 | Over 16% efficiency organic photovoltaic cells enabled by a chlorinated acceptor with increased open-circuit voltages. Nature Communications, 2019, 10, 2515. | 12.8 | 1,431 |
| 5 | Singleâ€Junction Organic Photovoltaic Cells with Approaching 18% Efficiency. Advanced Materials, 2020, 32, e1908205. | 21.0 | 1,407 |
| 6 | Non-fullerene acceptors with branched side chains and improved molecular packing to exceed 18% efficiency in organic solar cells. Nature Energy, 2021, 6, 605-613. | 39.5 | 1,307 |
| 7 | Fast charge separation in a non-fullerene organic solar cell with a small driving force. Nature Energy, 2016, 1, . | 39.5 | 1,167 |
| 8 | Planar perovskite solar cells with long-term stability using ionic liquid additives. Nature, 2019, 571, 245-250. | 27.8 | 1,103 |
| 9 | Rational molecular passivation for high-performance perovskite light-emitting diodes. Nature Photonics, 2019, 13, 418-424. | 31.4 | 970 |
| 10 | Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. Nature Energy, 2020, 5, 131-140. | 39.5 | 894 |
| 11 | Visibleâ€Light Photocatalytic Properties of Weak Magnetic BiFeO<sub>3</sub> Nanoparticles. Advanced Materials, 2007, 19, 2889-2892. | 21.0 | 837 |
| 12 | Metal halide perovskites for light-emitting diodes. Nature Materials, 2021, 20, 10-21. | 27.5 | 800 |
| 13 | Highly Efficient Perovskite Nanocrystal Lightâ€Emitting Diodes Enabled by a Universal Crosslinking Method. Advanced Materials, 2016, 28, 3528-3534. | 21.0 | 782 |
| 14 | Design rules for minimizing voltage losses in high-efficiency organic solar cells. Nature Materials, 2018, 17, 703-709. | 27.5 | 701 |
| 15 | Recent Progresses on Defect Passivation toward Efficient Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902650. | 19.5 | 516 |
| 16 | A piperidinium salt stabilizes efficient metal-halide perovskite solar cells. Science, 2020, 369, 96-102. | 12.6 | 461 |
| 17 | Wide-gap non-fullerene acceptor enabling high-performance organic photovoltaic cells for indoor applications. Nature Energy, 2019, 4, 768-775. | 39.5 | 407 |
| 18 | 14.7% Efficiency Organic Photovoltaic Cells Enabled by Active Materials with a Large Electrostatic Potential Difference. Journal of the American Chemical Society, 2019, 141, 7743-7750. | 13.7 | 379 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Enabling low voltage losses and high photocurrent in fullerene-free organic photovoltaics. Nature Communications, 2019, 10, 570. | 12.8 | 377 |
| 20 | Mapping Polymer Donors toward Highâ€Efficiency Fullerene Free Organic Solar Cells. Advanced Materials, 2017, 29, 1604155. | 21.0 | 360 |
| 21 | Fine-Tuning Energy Levels via Asymmetric End Groups Enables Polymer Solar Cells with Efficiencies over 17%. Joule, 2020, 4, 1236-1247. | 24.0 | 344 |
| 22 | High Performance and Stable Allâ€Inorganic Metal Halide Perovskiteâ€Based Photodetectors for Optical Communication Applications. Advanced Materials, 2018, 30, e1803422. | 21.0 | 342 |
| 23 | A monothiophene unit incorporating both fluoro and ester substitution enabling high-performance donor polymers for non-fullerene solar cells with 16.4% efficiency. Energy and Environmental Science, 2019, 12, 3328-3337. | 30.8 | 337 |
| 24 | Preparation and photoabsorption characterization of BiFeO3 nanowires. Applied Physics Letters, 2006, 89, 102506. | 3.3 | 335 |
| 25 | Defects engineering for high-performance perovskite solar cells. Npj Flexible Electronics, 2018, 2, . | 10.7 | 334 |
| 26 | Efficient Semitransparent Organic Solar Cells with Tunable Color enabled by an Ultralowâ€Bandgap Nonfullerene Acceptor. Advanced Materials, 2017, 29, 1703080. | 21.0 | 325 |
| 27 | Tuning the electron-deficient core of a non-fullerene acceptor to achieve over 17% efficiency in a single-junction organic solar cell. Energy and Environmental Science, 2020, 13, 2459-2466. | 30.8 | 324 |
| 28 | Minimising efficiency roll-off in high-brightness perovskite light-emitting diodes. Nature Communications, 2018, 9, 608. | 12.8 | 322 |
| 29 | Optical Gaps of Organic Solar Cells as a Reference for Comparing Voltage Losses. Advanced Energy Materials, 2018, 8, 1801352. | 19.5 | 319 |
| 30 | Subtle Molecular Tailoring Induces Significant Morphology Optimization Enabling over 16% Efficiency Organic Solar Cells with Efficient Charge Generation. Advanced Materials, 2020, 32, e1906324. | 21.0 | 312 |
| 31 | All-small-molecule organic solar cells with over 14% efficiency by optimizing hierarchical morphologies. Nature Communications, 2019, 10, 5393. | 12.8 | 273 |
| 32 | Oriented Quasiâ€2D Perovskites for High Performance Optoelectronic Devices. Advanced Materials, 2018, 30, e1804771. | 21.0 | 268 |
| 33 | Mixed halide perovskites for spectrally stable and high-efficiency blue light-emitting diodes. Nature Communications, 2021, 12, 361. | 12.8 | 268 |
| 34 | Barrierless Free Charge Generation in the Highâ€Performance PM6:Y6 Bulk Heterojunction Nonâ€Fullerene Solar Cell. Advanced Materials, 2020, 32, e1906763. | 21.0 | 258 |
| 35 | Formation of Nanopatterned Polymer Blends in Photovoltaic Devices. Nano Letters, 2010, 10, 1302-1307. | 9.1 | 248 |
| 36 | Aligned and Graded Typeâ€II Ruddlesdenâ€"Popper Perovskite Films for Efficient Solar Cells. Advanced Energy Materials, 2018, 8, 1800185. | 19.5 | 247 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | High Efficiency (15.8%) All-Polymer Solar Cells Enabled by a Regioregular Narrow Bandgap Polymer Acceptor. Journal of the American Chemical Society, 2021, 143, 2665-2670. | 13.7 | 245 |
| 38 | Long Electronâ€“Hole Diffusion Length in Highâ€Quality Leadâ€Free Double Perovskite Films. Advanced Materials, 2018, 30, e1706246. | 21.0 | 242 |
| 39 | Comparison of the Operation of Polymer/Fullerene, Polymer/Polymer, and Polymer/Nanocrystal Solar Cells: A Transient Photocurrent and Photovoltage Study. Advanced Functional Materials, 2011, 21, 1419-1431. | 14.9 | 241 |
| 40 | Band structure engineering in organic semiconductors. Science, 2016, 352, 1446-1449. | 12.6 | 239 |
| 41 | A unified description of non-radiative voltage losses in organic solar cells. Nature Energy, 2021, 6, 799-806. | 39.5 | 235 |
| 42 | A guest-assisted molecular-organization approach for >17% efficiency organic solar cells using environmentally friendly solvents. Nature Energy, 2021, 6, 1045-1053. | 39.5 | 230 |
| 43 | 16% efficiency all-polymer organic solar cells enabled by a finely tuned morphology via the design of ternary blend. Joule, 2021, 5, 914-930. | 24.0 | 228 |
| 44 | The role of charge recombination to triplet excitons in organic solar cells. Nature, 2021, 597, 666-671. | 27.8 | 225 |
| 45 | Non-fullerene acceptor with low energy loss and high external quantum efficiency: towards high performance polymer solar cells. Journal of Materials Chemistry A, 2016, 4, 5890-5897. | 10.3 | 219 |
| 46 | Large cation ethylammonium incorporated perovskite for efficient and spectra stable blue light-emitting diodes. Nature Communications, 2020, 11, 4165. | 12.8 | 217 |
| 47 | Blue perovskite light-emitting diodes: progress, challenges and future directions. Nanoscale, 2019, 11, 2109-2120. | 5.6 | 211 |
| 48 | Structural and Functional Diversity in Leadâ€Free Halide Perovskite Materials. Advanced Materials, 2019, 31, e1900326. | 21.0 | 198 |
| 49 | Charge generation in polymerâ€“fullerene bulk-heterojunction solar cells. Physical Chemistry Chemical Physics, 2014, 16, 20291-20304. | 2.8 | 190 |
| 50 | Conjugated Zwitterionic Polyelectrolyte as the Charge Injection Layer for High-Performance Polymer Light-Emitting Diodes. Journal of the American Chemical Society, 2011, 133, 683-685. | 13.7 | 189 |
| 51 | A Narrowâ€Bandgap nâ€Type Polymer with an Acceptorâ€“Acceptor Backbone Enabling Efficient Allâ€Polymer Solar Cells. Advanced Materials, 2020, 32, e2004183. | 21.0 | 184 |
| 52 | Simultaneously Achieved High Openâ€Circuit Voltage and Efficient Charge Generation by Fineâ€Tuning Chargeâ€Transfer Driving Force in Nonfullerene Polymer Solar Cells. Advanced Functional Materials, 2018, 28, 1704507. | 14.9 | 180 |
| 53 | Colloidal metal halide perovskite nanocrystals: synthesis, characterization, and applications. Journal of Materials Chemistry C, 2016, 4, 3898-3904. | 5.5 | 179 |
| 54 | Fluorination vs. chlorination: a case study on high performance organic photovoltaic materials. Science China Chemistry, 2018, 61, 1328-1337. | 8.2 | 177 |

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|---|---|---|---|
| 55 | Balanced Partnership between Donor and Acceptor Components in Nonfullerene Organic Solar Cells with >12% Efficiency. Advanced Materials, 2018, 30, e1706363. | 21.0 | 172 |
| 56 | Leadâ€Free Double Perovskite Cs<sub>2</sub>AgBiBr<sub>6</sub>: Fundamentals, Applications, and Perspectives. Advanced Functional Materials, 2021, 31, 2105898. | 14.9 | 166 |
| 57 | Critical Role of Molecular Electrostatic Potential on Charge Generation in Organic Solar Cells. Chinese Journal of Chemistry, 2018, 36, 491-494. | 4.9 | 163 |
| 58 | Efficient Nonfullerene Organic Solar Cells with Small Driving Forces for Both Hole and Electron Transfer. Advanced Materials, 2018, 30, e1804215. | 21.0 | 161 |
| 59 | Ethanedithiol Treatment of Solutionâ€Processed ZnO Thin Films: Controlling the Intragap States of Electron Transporting Interlayers for Efficient and Stable Inverted Organic Photovoltaics. Advanced Energy Materials, 2015, 5, 1401606. | 19.5 | 157 |
| 60 | Highâ€Performance Noncovalently Fusedâ€Ring Electron Acceptors for Organic Solar Cells Enabled by Noncovalent Intramolecular Interactions and Endâ€Group Engineering. Angewandte Chemie - International Edition, 2021, 60, 12475-12481. | 13.8 | 155 |
| 61 | Reducing Voltage Losses in the A-DAâ€²D-A Acceptor-Based Organic Solar Cells. CheM, 2020, 6, 2147-2161. | 11.7 | 150 |
| 62 | Synergistic strain engineering of perovskite single crystals for highly stable and sensitive X-ray detectors with low-bias imaging and monitoring. Nature Photonics, 2022, 16, 575-581. | 31.4 | 138 |
| 63 | Advances in solution-processed near-infrared light-emitting diodes. Nature Photonics, 2021, 15, 656-669. | 31.4 | 136 |
| 64 | Efficient and Spectrally Stable Blue Perovskite Lightâ€Emitting Diodes Based on Potassium Passivated Nanocrystals. Advanced Functional Materials, 2020, 30, 1908760. | 14.9 | 134 |
| 65 | Promoting charge separation resulting in ternary organic solar cells efficiency over 17.5%. Nano Energy, 2020, 78, 105272. | 16.0 | 132 |
| 66 | Highâ€Performance Perovskite Lightâ€Emitting Diode with Enhanced Operational Stability Using Lithium Halide Passivation. Angewandte Chemie - International Edition, 2020, 59, 4099-4105. | 13.8 | 130 |
| 67 | Unveiling the synergistic effect of precursor stoichiometry and interfacial reactions for perovskite light-emitting diodes. Nature Communications, 2019, 10, 2818. | 12.8 | 129 |
| 68 | Facet orientation tailoring via 2D-seed- induced growth enables highly efficient and stable perovskite solar cells. Joule, 2022, 6, 240-257. | 24.0 | 128 |
| 69 | Stable, Highâ€Sensitivity and Fastâ€Response Photodetectors Based on Leadâ€Free Cs<sub>2</sub>AgBiBr<sub>6</sub> Double Perovskite Films. Advanced Optical Materials, 2019, 7, 1801732. | 7.3 | 126 |
| 70 | Bidirectional optical signal transmission between two identical devices using perovskite diodes. Nature Electronics, 2020, 3, 156-164. | 26.0 | 126 |
| 71 | Emerging Approaches in Enhancing the Efficiency and Stability in Nonâ€Fullerene Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2002746. | 19.5 | 124 |
| 72 | The progress and prospects of non-fullerene acceptors in ternary blend organic solar cells. Materials Horizons, 2018, 5, 206-221. | 12.2 | 122 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Accelerated aging of all-inorganic, interface-stabilized perovskite solar cells. Science, 2022, 377, 307-310. | 12.6 | 121 |
| 74 | Thermochromic Leadâ€Free Halide Double Perovskites. Advanced Functional Materials, 2019, 29, 1807375. | 14.9 | 120 |
| 75 | Mechanisms and Suppression of Photoinduced Degradation in Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2002326. | 19.5 | 118 |
| 76 | Efficient CsPbBr<sub>3</sub> Perovskite Lightâ€Emitting Diodes Enabled by Synergetic Morphology Control. Advanced Optical Materials, 2019, 7, 1801534. | 7.3 | 117 |
| 77 | Surface phase separation in nanosized charge-ordered manganites. Applied Physics Letters, 2007, 90, 082508. | 3.3 | 115 |
| 78 | Sideâ€Chain Engineering for Enhancing the Molecular Rigidity and Photovoltaic Performance of Noncovalently Fusedâ€Ring Electron Acceptors. Angewandte Chemie - International Edition, 2021, 60, 17720-17725. | 13.8 | 113 |
| 79 | Asymmetric electron acceptor enables highly luminescent organic solar cells with certified efficiency over 18%. Nature Communications, 2022, 13, 2598. | 12.8 | 113 |
| 80 | Lowâ€Temperature Combustionâ€Synthesized Nickel Oxide Thin Films as Holeâ€Transport Interlayers for Solutionâ€Processed Optoelectronic Devices. Advanced Energy Materials, 2014, 4, 1301460. | 19.5 | 110 |
| 81 | Phenylalkylammonium passivation enables perovskite light emitting diodes with record high-radiance operational lifetime: the chain length matters. Nature Communications, 2021, 12, 644. | 12.8 | 109 |
| 82 | The renaissance of hybrid solar cells: progresses, challenges, and perspectives. Energy and Environmental Science, 2013, 6, 2020. | 30.8 | 108 |
| 83 | Revealing Morphology Evolution in Highly Efficient Bulk Heterojunction and Pseudoâ€Planar Heterojunction Solar Cells by Additives Treatment. Advanced Energy Materials, 2021, 11, 2003390. | 19.5 | 106 |
| 84 | Stable and bright formamidinium-based perovskite light-emitting diodes with high energy conversion efficiency. Nature Communications, 2019, 10, 3624. | 12.8 | 104 |
| 85 | Highâ€Efficiency Flexible Solar Cells Based on Organometal Halide Perovskites. Advanced Materials, 2016, 28, 4532-4540. | 21.0 | 102 |
| 86 | Fullereneâ€Based Materials for Photovoltaic Applications: Toward Efficient, Hysteresisâ€Free, and Stable Perovskite Solar Cells. Advanced Electronic Materials, 2018, 4, 1700435. | 5.1 | 101 |
| 87 | Colloidal metal oxide nanocrystals as charge transporting layers for solution-processed light-emitting diodes and solar cells. Chemical Society Reviews, 2017, 46, 1730-1759. | 38.1 | 99 |
| 88 | Critical role of additive-induced molecular interaction on the operational stability of perovskite light-emitting diodes. Joule, 2021, 5, 618-630. | 24.0 | 99 |
| 89 | Morphological Control for Highly Efficient Inverted Polymer Solar Cells Via the Backbone Design of Cathode Interlayer Materials. Advanced Energy Materials, 2014, 4, 1400359. | 19.5 | 98 |
| 90 | Strong self-trapping by deformation potential limits photovoltaic performance in bismuth double perovskite. Science Advances, 2021, 7, . | 10.3 | 98 |

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|---|---|---|---|
| 91 | Temperature Dependence of Charge Carrier Generation in Organic Photovoltaics. Physical Review Letters, 2015, 114, 128701. | 7.8 | 96 |
| 92 | Charge-order breaking and ferromagnetism in La0.4Ca0.6MnO3 nanoparticles. Applied Physics Letters, 2007, 91, . | 3.3 | 95 |
| 93 | A Nearâ€Infrared Photoactive Morphology Modifier Leads to Significant Current Improvement and Energy Loss Mitigation for Ternary Organic Solar Cells. Advanced Science, 2018, 5, 1800755. | 11.2 | 93 |
| 94 | Understanding energetic disorder in electron-deficient-core-based non-fullerene solar cells. Science China Chemistry, 2020, 63, 1159-1168. | 8.2 | 92 |
| 95 | Optical Energy Losses in Organicâ€"Inorganic Hybrid Perovskite Lightâ€Emitting Diodes. Advanced Optical Materials, 2018, 6, 1800667. | 7.3 | 91 |
| 96 | Decoupling the effects of defects on efficiency and stability through phosphonates in stable halide perovskite solar cells. Joule, 2021, 5, 1246-1266. | 24.0 | 91 |
| 97 | Fluorinated End Group Enables Highâ€Performance Allâ€Polymer Solar Cells with Nearâ€Infrared Absorption and Enhanced Device Efficiency over 14%. Advanced Energy Materials, 2021, 11, 2003171. | 19.5 | 89 |
| 98 | Recent progress toward perovskite light-emitting diodes with enhanced spectral and operational stability. Materials Today Nano, 2019, 5, 100028. | 4.6 | 86 |
| 99 | Control of exciton spin statistics through spin polarization in organic optoelectronic devices. Nature Communications, 2012, 3, 1191. | 12.8 | 85 |
| 100 | Allâ€polymer solar cells with over 16% efficiency and enhanced stability enabled by compatible solvent and polymer additives. Aggregate, 2022, 3, e58. | 9.9 | 85 |
| 101 | Trap-Induced Losses in Hybrid Photovoltaics. ACS Nano, 2014, 8, 3213-3221. | 14.6 | 84 |
| 102 | Perovskite-molecule composite thin films for efficient and stable light-emitting diodes. Nature Communications, 2020, 11, 891. | 12.8 | 83 |
| 103 | Diffusion-Limited Crystallization: A Rationale for the Thermal Stability of Non-Fullerene Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 21766-21774. | 8.0 | 82 |
| 104 | Leadâ€Free Halide Double Perovskite Cs<sub>2</sub>AgBiBr<sub>6</sub> with Decreased Band Gap. Angewandte Chemie - International Edition, 2020, 59, 15191-15194. | 13.8 | 80 |
| 105 | Formation of Wellâ€Ordered Heterojunctions in Polymer:PCBM Photovoltaic Devices. Advanced Functional Materials, 2011, 21, 139-146. | 14.9 | 78 |
| 106 | Triplet Acceptors with a Dâ€A Structure and Twisted Conformation for Efficient Organic Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 15043-15049. | 13.8 | 77 |
| 107 | A universal method for constructing high efficiency organic solar cells with stacked structures. Energy and Environmental Science, 2021, 14, 2314-2321. | 30.8 | 75 |
| 108 | A New Tetracyclic Lactam Building Block for Thick, Broad-Bandgap Photovoltaics. Journal of the American Chemical Society, 2014, 136, 11578-11581. | 13.7 | 73 |

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|---|---|---|---|
| 109 | Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. ACS Energy Letters, 2020, 5, 3415-3425. | 17.4 | 73 |
| 110 | High-Brightness Perovskite Light-Emitting Diodes Based on FAPbBr<sub>3</sub> Nanocrystals with Rationally Designed Aromatic Ligands. ACS Energy Letters, 2021, 6, 2395-2403. | 17.4 | 67 |
| 111 | Oxygen- and Water-Induced Energetics Degradation in Organometal Halide Perovskites. ACS Applied Materials & Interfaces, 2018, 10, 16225-16230. | 8.0 | 66 |
| 112 | Precisely Controlling the Grain Sizes with an Ammonium Hypophosphite Additive for Highâ€Performance Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1802320. | 14.9 | 65 |
| 113 | A minimal non-radiative recombination loss for efficient non-fullerene all-small-molecule organic solar cells with a low energy loss of 0.54ÂeV and high open-circuit voltage of 1.15 V. Journal of Materials Chemistry A, 2018, 6, 13918-13924. | 10.3 | 62 |
| 114 | Mechanism study on organic ternary photovoltaics with 18.3% certified efficiency: from molecule to device. Energy and Environmental Science, 2022, 15, 855-865. | 30.8 | 62 |
| 115 | Fluorinated Peryleneâ€Diimides: Cathode Interlayers Facilitating Carrier Collection for Highâ€Performance Organic Solar Cells. Advanced Materials, 2022, 34, . | 21.0 | 62 |
| 116 | Application of weak ferromagnetic BiFeO3 films as the photoelectrode material under visible-light irradiation. Applied Physics Letters, 2007, 91, . | 3.3 | 61 |
| 117 | Organicâ€“Inorganic Hybrid Ruddlesdenâ€“Popper Perovskites: An Emerging Paradigm for High-Performance Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2018, 9, 2251-2258. | 4.6 | 59 |
| 118 | Inverted all-polymer solar cells based on a quinoxalineâ€“thiophene/naphthalene-diimide polymer blend improved by annealing. Journal of Materials Chemistry A, 2016, 4, 3835-3843. | 10.3 | 57 |
| 119 | Enhanced photocatalytic efficiency of C<sub>3</sub>N<sub>4</sub>/BiFeO<sub>3</sub>heterojunctions: the synergistic effects of band alignment and ferroelectricity. Physical Chemistry Chemical Physics, 2018, 20, 3648-3657. | 2.8 | 57 |
| 120 | Nearâ€Infrared Lightâ€Responsive Cuâ€Doped Cs<sub>2</sub>AgBiBr<sub>6</sub>. Advanced Functional Materials, 2020, 30, 2005521. | 14.9 | 56 |
| 121 | Magnetizing lead-free halide double perovskites. Science Advances, 2020, 6, . | 10.3 | 56 |
| 122 | Manipulating crystallization dynamics through chelating molecules for bright perovskite emitters. Nature Communications, 2021, 12, 4831. | 12.8 | 56 |
| 123 | Defect Passivation for Red Perovskite Light-Emitting Diodes with Improved Brightness and Stability. Journal of Physical Chemistry Letters, 2019, 10, 380-385. | 4.6 | 55 |
| 124 | Allâ€Polymer Solar Cells with over 12% Efficiency and a Small Voltage Loss Enabled by a Polymer Acceptor Based on an Extended Fused Ring Core. Advanced Energy Materials, 2020, 10, 2001408. | 19.5 | 55 |
| 125 | A-Ï€-A structured non-fullerene acceptors for stable organic solar cells with efficiency over 17%. Science China Chemistry, 2022, 65, 1374-1382. | 8.2 | 53 |
| 126 | Accurate photovoltaic measurement of organic cells for indoor applications. Joule, 2021, 5, 1016-1023. | 24.0 | 52 |

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|---|---|---|---|
| 127 | High-performance all-polymer solar cells enabled by a novel low bandgap non-fully conjugated polymer acceptor. Science China Chemistry, 2021, 64, 1380-1388. | 8.2 | 51 |
| 128 | Degradation and self-repairing in perovskite light-emitting diodes. Matter, 2021, 4, 3710-3724. | 10.0 | 51 |
| 129 | Suppression of Recombination Energy Losses by Decreasing the Energetic Offsets in Perylene Diimide-Based Nonfullerene Organic Solar Cells. ACS Energy Letters, 2018, 3, 2729-2735. | 17.4 | 50 |
| 130 | Intermediate-phase-assisted low-temperature formation of Î³-CsPbI3 films for high-efficiency deep-red light-emitting devices. Nature Communications, 2020, 11, 4736. | 12.8 | 50 |
| 131 | Efficient non-fullerene organic solar cells employing sequentially deposited donorâ€“acceptor layers. Journal of Materials Chemistry A, 2018, 6, 18225-18233. | 10.3 | 49 |
| 132 | Effects of ultraviolet soaking on surface electronic structures of solution processed ZnO nanoparticle films in polymer solar cells. Journal of Materials Chemistry A, 2014, 2, 17676-17682. | 10.3 | 48 |
| 133 | Realizing Efficient Charge/Energy Transfer and Charge Extraction in Fullerene-Free Organic Photovoltaics via a Versatile Third Component. Nano Letters, 2019, 19, 5053-5061. | 9.1 | 47 |
| 134 | Carrier Dynamics and Evaluation of Lasing Actions in Halide Perovskites. Trends in Chemistry, 2021, 3, 34-46. | 8.5 | 47 |
| 135 | The Effect of Processing Additives on Energetic Disorder in Highly Efficient Organic Photovoltaics: A Case Study on PBDTTTâ€Câ€T:PC<sub>71</sub>BM. Advanced Materials, 2015, 27, 3868-3873. | 21.0 | 46 |
| 136 | Ultra-Bright Near-Infrared Perovskite Light-Emitting Diodes with Reduced Efficiency Roll-off. Scientific Reports, 2018, 8, 15496. | 3.3 | 42 |
| 137 | Spacer Cation Alloying in Ruddlesdenâ€“Popper Perovskites for Efficient Red Lightâ€Emitting Diodes with Precisely Tunable Wavelengths. Advanced Materials, 2021, 33, e2104381. | 21.0 | 41 |
| 138 | Mapping the energy level alignment at donor/acceptor interfaces in non-fullerene organic solar cells. Nature Communications, 2022, 13, 2046. | 12.8 | 41 |
| 139 | Synthesis of Unstable Colloidal Inorganic Nanocrystals through the Introduction of a Protecting Ligand. Nano Letters, 2014, 14, 3117-3123. | 9.1 | 40 |
| 140 | Memristive devices based on solutionâ€processed ZnO nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 484-487. | 1.8 | 38 |
| 141 | Surface Chlorination of ZnO for Perovskite Solar Cells with Enhanced Efficiency and Stability. Solar Rrl, 2019, 3, 1900154. | 5.8 | 37 |
| 142 | A disorder-free conformation boosts phonon and charge transfer in an electron-deficient-core-based non-fullerene acceptor. Journal of Materials Chemistry A, 2020, 8, 8566-8574. | 10.3 | 37 |
| 143 | Approximately 800-nm-Thick Pinhole-Free Perovskite Films via Facile Solvent Retarding Process for Efficient Planar Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 34446-34454. | 8.0 | 36 |
| 144 | Reproducible Planar Heterojunction Solar Cells Based on One-Step Solution-Processed Methylammonium Lead Halide Perovskites. Chemistry of Materials, 2017, 29, 462-473. | 6.7 | 35 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 145 | Highâ€Quality Ruddlesdenâ€“Popper Perovskite Films Based on In Situ Formed Organic Spacer Cations. Advanced Materials, 2019, 31, e1904243. | 21.0 | 35 |
| 146 | Bright Free Exciton Electroluminescence from Mn-Doped Two-Dimensional Layered Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 3171-3175. | 4.6 | 35 |
| 147 | Non-fullerene acceptor photostability and its impact on organic solar cell lifetime. Cell Reports Physical Science, 2021, 2, 100498. | 5.6 | 35 |
| 148 | Regular Energetics at Conjugated Electrolyte/Electrode Modifier for Organic Electronics and their Implications on Design Rules. Advanced Materials Interfaces, 2015, 2, 1500204. | 3.7 | 34 |
| 149 | Leadâ€Free Halide Double Perovskite Cs<sub>2</sub>AgBiBr<sub>6</sub> with Decreased Band Gap. Angewandte Chemie, 2020, 132, 15303-15306. | 2.0 | 34 |
| 150 | The atomic-level structure of bandgap engineered double perovskite alloys Cs<sub>2</sub>AgIn<sub>1âˆ'<i>x</i></sub>Fe<sub><i>x</i></sub>Cl<sub>6</sub>. Chemical Science, 2021, 12, 1730-1735. | 7.4 | 34 |
| 151 | Highâ€Performance Allâ€Smallâ€Molecule Organic Solar Cells Enabled by Regioâ€Isomerization of Noncovalently Conformational Locks. Advanced Functional Materials, 2022, 32, . | 14.9 | 34 |
| 152 | A New Acceptor for Highly Efficient Organic Solar Cells. Joule, 2019, 3, 908-909. | 24.0 | 33 |
| 153 | Reducing energy loss via tuning energy levels of polymer acceptors for efficient all-polymer solar cells. Science China Chemistry, 2020, 63, 1785-1792. | 8.2 | 32 |
| 154 | Semi-three-dimensional algorithm for time-resolved diffuse optical tomography by use of the generalized pulse spectrum technique. Applied Optics, 2002, 41, 7346. | 2.1 | 31 |
| 155 | Charge order suppression and weak ferromagnetism in La1âˆ•3Sr2âˆ•3FeO3 nanoparticles. Applied Physics Letters, 2007, 91, . | 3.3 | 31 |
| 156 | Highâ€Performance Noncovalently Fusedâ€Ring Electron Acceptors for Organic Solar Cells Enabled by Noncovalent Intramolecular Interactions and Endâ€Group Engineering. Angewandte Chemie, 2021, 133, 12583-12589. | 2.0 | 31 |
| 157 | Thermal-induced interface degradation in perovskite light-emitting diodes. Journal of Materials Chemistry C, 2020, 8, 15079-15085. | 5.5 | 30 |
| 158 | Mobile ions determine the luminescence yield of perovskite light-emitting diodes under pulsed operation. Nature Communications, 2021, 12, 4899. | 12.8 | 30 |
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