# Wei Chen

## List of Publications by Year
## in descending order

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|---|---|---|---|
| 81<br>papers | 10,446<br>citations | 57631<br>44<br>h-index | 60497<br>81<br>g-index |
| 81<br>all docs | 81<br>docs citations | 81<br>times ranked | 10795<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Monolithic perovskite/organic tandem solar cells with 23.6% efficiency enabled by reduced voltage losses and optimized interconnecting layer. Nature Energy, 2022, 7, 229-237. | 19.8 | 137 |
| 2 | Encapsulation and Stability Testing of Perovskite Solar Cells for Real Life Applications. ACS Materials Au, 2022, 2, 215-236. | 2.6 | 41 |
| 3 | Rear Electrode Materials for Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, . | 7.8 | 49 |
| 4 | Methylammonium and Bromideâ€Free Tinâ€Based Low Bandgap Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, . | 10.2 | 18 |
| 5 | Evaporated potassium chloride for double-sided interfacial passivation in inverted planar perovskite solar cells. Journal of Energy Chemistry, 2021, 54, 493-500. | 7.1 | 28 |
| 6 | Engineering of dendritic dopant-free hole transport molecules: enabling ultrahigh fill factor in perovskite solar cells with optimized dendron construction. Science China Chemistry, 2021, 64, 41-51. | 4.2 | 55 |
| 7 | Charge-transfer induced multifunctional BCP:Ag complexes for semi-transparent perovskite solar cells with a record fill factor of 80.1%. Journal of Materials Chemistry A, 2021, 9, 12009-12018. | 5.2 | 29 |
| 8 | A Review on Encapsulation Technology from Organic Light Emitting Diodes to Organic and Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2100151. | 7.8 | 114 |
| 9 | Interfacial stabilization for inverted perovskite solar cells with long-term stability. Science Bulletin, 2021, 66, 991-1002. | 4.3 | 45 |
| 10 | Enhanced Light Emission Performance of Mixed Cation Perovskite Filmsâ€”The Effect of Solution Stoichiometry on Crystallization. Advanced Optical Materials, 2021, 9, 2100393. | 3.6 | 6 |
| 11 | The Nonâ€Innocent Role of Holeâ€Transporting Materials in Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100514. | 3.1 | 18 |
| 12 | Metal oxide charge transport layers in perovskite solar cellsâ€”optimising low temperature processing and improving the interfaces towards low temperature processed, efficient and stable devices. JPhys Energy, 2021, 3, 012004. | 2.3 | 11 |
| 13 | Efficient Perovskite Solar Cells with a Novel Aggregationâ€Induced Emission Molecule as Holeâ€Transport Material. Solar Rrl, 2020, 4, 1900189. | 3.1 | 14 |
| 14 | Stabilizing n-type hetero-junctions for NiO<sub>x</sub> based inverted planar perovskite solar cells with an efficiency of 21.6%. Journal of Materials Chemistry A, 2020, 8, 1865-1874. | 5.2 | 40 |
| 15 | Mixed Spacer Cation Stabilization of Blueâ€Emitting <i>n</i> = 2 Ruddlesdenâ€“Popper Organicâ€“Inorganic Halide Perovskite Films. Advanced Optical Materials, 2020, 8, 1901679. | 3.6 | 41 |
| 16 | N-type conjugated polymer as efficient electron transport layer for planar inverted perovskite solar cells with power conversion efficiency of 20.86%. Nano Energy, 2020, 68, 104363. | 8.2 | 58 |
| 17 | Unraveling the Crystallization Kinetics of 2D Perovskites with Sandwichâ€Type Structure for Highâ€Performance Photovoltaics. Advanced Materials, 2020, 32, e2002784. | 11.1 | 52 |
| 18 | Improving Efficiency and Stability of Perovskite Solar Cells Enabled by A Near-Infrared-Absorbing Moisture Barrier. Joule, 2020, 4, 1575-1593. | 11.7 | 88 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 19 | Investigation on the role of amines in the liquefaction and recrystallization process of MAPbI<sub>3</sub> perovskite. Journal of Materials Chemistry A, 2020, 8, 13585-13593. | 5.2 | 11 |
| 20 | Imide-functionalized acceptorâ€“acceptor copolymers as efficient electron transport layers for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 13754-13762. | 5.2 | 28 |
| 21 | High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903487. | 10.2 | 210 |
| 22 | Supersmooth Ta<sub>2</sub>O<sub>5</sub>/Ag/Polyetherimide Film as the Rear Transparent Electrode for High Performance Semitransparent Perovskite Solar Cells. Advanced Optical Materials, 2019, 7, 1801409. | 3.6 | 13 |
| 23 | A general strategy to prepare high-quality inorganic charge-transporting layers for efficient and stable all-layer-inorganic perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 18603-18611. | 5.2 | 31 |
| 24 | Dopantâ€Free Smallâ€Molecule Holeâ€Transporting Material for Inverted Perovskite Solar Cells with Efficiency Exceeding 21%. Advanced Materials, 2019, 31, e1902781. | 11.1 | 268 |
| 25 | Dopantâ€Free Hole Transporting Molecules for Highly Efficient Perovskite Photovoltaic with Strong Interfacial Interaction. Solar Rrl, 2019, 3, 1900319. | 3.1 | 20 |
| 26 | A New Wide Bandgap Donor Polymer for Efficient Nonfullerene Organic Solar Cells with a Large Openâ€Circuit Voltage. Advanced Science, 2019, 6, 1901773. | 5.6 | 61 |
| 27 | A Tailored Nickel Oxide Holeâ€Transporting Layer to Improve the Longâ€Term Thermal Stability of Inorganic Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900346. | 3.1 | 30 |
| 28 | Efficient and Stable FASnI<sub>3</sub> Perovskite Solar Cells with Effective Interface Modulation by Lowâ€Dimensional Perovskite Layer. ChemSusChem, 2019, 12, 5007-5014. | 3.6 | 111 |
| 29 | High Short-Circuit Current Density via Integrating the Perovskite and Ternary Organic Bulk Heterojunction. ACS Energy Letters, 2019, 4, 2535-2536. | 8.8 | 47 |
| 30 | A low-temperature-annealed and UV-ozone-enhanced combustion derived nickel oxide hole injection layer for flexible quantum dot light-emitting diodes. Nanoscale, 2019, 11, 1021-1028. | 2.8 | 42 |
| 31 | Novel Molecular Doping Mechanism for nâ€Doping of SnO<sub>2</sub> via Triphenylphosphine Oxide and Its Effect on Perovskite Solar Cells. Advanced Materials, 2019, 31, e1805944. | 11.1 | 152 |
| 32 | Spontaneous Formation of Nanocrystals in Amorphous Matrix: Alternative Pathway to Bright Emission in Quasiâ€2D Perovskites. Advanced Optical Materials, 2019, 7, 1900269. | 3.6 | 3 |
| 33 | Hydrothermally Treated SnO<sub>2</sub> as the Electron Transport Layer in Highâ€Efficiency Flexible Perovskite Solar Cells with a Certificated Efficiency of 17.3%. Advanced Functional Materials, 2019, 29, 1807604. | 7.8 | 72 |
| 34 | Conjugated Polymerâ€“Assisted Grain Boundary Passivation for Efficient Inverted Planar Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1808855. | 7.8 | 133 |
| 35 | Alloy-induced phase transition and enhanced photovoltaic performance: the case of Cs<sub>3</sub>Bi<sub>2</sub>I<sub>9âˆ’x</sub>Br<sub>x</sub> perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 8818-8825. | 5.2 | 87 |
| 36 | Alkali Chlorides for the Suppression of the Interfacial Recombination in Inverted Planar Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803872. | 10.2 | 236 |

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|---|---|---|---|
| 37 | A chemically inert bismuth interlayer enhances long-term stability of inverted perovskite solar cells. Nature Communications, 2019, 10, 1161. | 5.8 | 225 |
| 38 | Multifunctional atomic force probes for Mn2+ doped perovskite solar cells. Journal of Power Sources, 2019, 425, 130-137. | 4.0 | 11 |
| 39 | Synergy Effect of Both 2,2,2â€Trifluoroethylamine Hydrochloride and SnF<sub>2</sub> for Highly Stable FASnI<sub>3âˆ’x</sub>Cl<sub>x</sub> Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800290. | 3.1 | 45 |
| 40 | Side-Chain Engineering of Donorâ€“Acceptor Conjugated Small Molecules As Dopant-Free Hole-Transport Materials for Efficient Normal Planar Perovskite Solar Cells. ACS Applied Materials &amp; Interfaces, 2019, 11, 48556-48563. | 4.0 | 49 |
| 41 | Eliminating J-V hysteresis in perovskite solar cells via defect controlling. Organic Electronics, 2018, 58, 283-289. | 1.4 | 29 |
| 42 | Inverted planar organic-inorganic hybrid perovskite solar cells with NiO x hole-transport layers as light-in window. Applied Surface Science, 2018, 451, 325-332. | 3.1 | 15 |
| 43 | Moleculeâ€Doped Nickel Oxide: Verified Charge Transfer and Planar Inverted Mixed Cation Perovskite Solar Cell. Advanced Materials, 2018, 30, e1800515. | 11.1 | 287 |
| 44 | Solvent engineering for efficient inverted perovskite solar cells based on inorganic CsPbI2Br light absorber. Materials Today Energy, 2018, 8, 125-133. | 2.5 | 121 |
| 45 | Understanding the Doping Effect on NiO: Toward Highâ€Performance Inverted Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703519. | 10.2 | 286 |
| 46 | Promising ITO-free perovskite solar cells with WO<sub>3</sub>â€“Agâ€“SnO<sub>2</sub>as transparent conductive oxide. Journal of Materials Chemistry A, 2018, 6, 19330-19337. | 5.2 | 27 |
| 47 | Bifunctional Molecular Modification Improving Efficiency and Stability of Inverted Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800645. | 1.9 | 43 |
| 48 | The Impact of Hybrid Compositional Film/Structure on Organicâ€“Inorganic Perovskite Solar Cells. Nanomaterials, 2018, 8, 356. | 1.9 | 30 |
| 49 | General Method To Define the Type of Carrier Transport Materials for Perovskite Solar Cells via Kelvin Probes Microscopy. ACS Applied Energy Materials, 2018, 1, 3984-3991. | 2.5 | 15 |
| 50 | Formamidiniumâ€Based Lead Halide Perovskites: Structure, Properties, and Fabrication Methodologies. Small Methods, 2018, 2, 1700387. | 4.6 | 48 |
| 51 | Black Phosphorus Quantum Dots for Hole Extraction of Typical Planar Hybrid Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 591-598. | 2.1 | 191 |
| 52 | SrCl<sub>2</sub> Derived Perovskite Facilitating a High Efficiency of 16% in Holeâ€Conductorâ€Free Fully Printable Mesoscopic Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606608. | 11.1 | 135 |
| 53 | Metal Acetylacetonate Series in Interface Engineering for Full Lowâ€Temperatureâ€Processed, Highâ€Performance, and Stable Planar Perovskite Solar Cells with Conversion Efficiency over 16% on 1 cm<sup>2</sup> Scale. Advanced Materials, 2017, 29, 1603923. | 11.1 | 190 |
| 54 | Perovskite solar cells - An overview of critical issues. Progress in Quantum Electronics, 2017, 53, 1-37. | 3.5 | 132 |

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|---|---|---|---|
| 55 | Cesium Doped NiO<i><sub>x</sub></i> as an Efficient Hole Extraction Layer for Inverted Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700722. | 10.2 | 353 |
| 56 | Research progress on large-area perovskite thin films and solar modules. Journal of Materiomics, 2017, 3, 231-244. | 2.8 | 75 |
| 57 | Inverted Planar Perovskite Solar Cells with a High Fill Factor and Negligible Hysteresis by the Dual Effect of NaCl-Doped PEDOT:PSS. ACS Applied Materials &amp; Interfaces, 2017, 9, 43902-43909. | 4.0 | 149 |
| 58 | Synthesis of Lead-Free Perovskite Films by Combinatorial Evaporation: Fast Processes for Screening Different Precursor Combinations. Chemistry of Materials, 2017, 29, 9946-9953. | 3.2 | 13 |
| 59 | Ruthenium acetylacetonate in interface engineering for high performance planar hybrid perovskite solar cells. Optics Express, 2017, 25, A253. | 1.7 | 16 |
| 60 | Overcoming the Interface Losses in Planar Heterojunction Perovskiteâ€Based Solar Cells. Advanced Materials, 2016, 28, 5112-5120. | 11.1 | 188 |
| 61 | A Series of Pyreneâ€Substituted Silicon Phthalocyanines as Nearâ€IR Sensitizers in Organic Ternary Solar Cells. Advanced Energy Materials, 2016, 6, 1502355. | 10.2 | 59 |
| 62 | Low Cost and Solution Processed Interfacial Layer Based on Poly(2-ethyl-2-oxazoline) Nanodots for Inverted Perovskite Solar Cells. Chemistry of Materials, 2016, 28, 4879-4883. | 3.2 | 45 |
| 63 | Low temperature processed, high-performance and stable NiOx based inverted planar perovskite solar cells via a poly(2-ethyl-2-oxazoline) nanodots cathode electron-extraction layer. Materials Today Energy, 2016, 1-2, 1-10. | 2.5 | 30 |
| 64 | Perovskite solar cells with 18.21% efficiency andÂarea over 1â€‰cm2 fabricated by heterojunctionÂengineering. Nature Energy, 2016, 1, . | 19.8 | 555 |
| 65 | Overcoming Electrodeâ€Induced Losses in Organic Solar Cells by Tailoring a Quasiâ€Ohmic Contact to Fullerenes via Solutionâ€Processed Alkali Hydroxide Layers. Advanced Energy Materials, 2016, 6, 1502195. | 10.2 | 29 |
| 66 | Highâ€Quality Mixedâ€Organicâ€Cation Perovskites from a Phaseâ€Pure Nonâ€stoichiometric Intermediate (FAI)<sub>1âˆ’</sub><i><sub>x</sub></i>â€PbI<sub>2</sub> for Solar Cells. Advanced Materials, 2015, 27, 4918-4923. | 11.1 | 140 |
| 67 | Inverted, Environmentally Stable Perovskite Solar Cell with a Novel Lowâ€Cost and Waterâ€Free PEDOT Holeâ€Extraction Layer. Advanced Energy Materials, 2015, 5, 1500543. | 10.2 | 81 |
| 68 | Lowâ€Temperature and Hysteresisâ€Free Electronâ€Transporting Layers for Efficient, Regular, and Planar Structure Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1501056. | 10.2 | 69 |
| 69 | Sub-bandgap photon harvesting for organic solar cells via integrating up-conversion nanophosphors. Organic Electronics, 2015, 19, 113-119. | 1.4 | 13 |
| 70 | Black Phosphorus Quantum Dots. Angewandte Chemie - International Edition, 2015, 54, 3653-3657. | 7.2 | 594 |
| 71 | Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. Science, 2015, 350, 944-948. | 6.0 | 2,007 |
| 72 | Low-Temperature Solution-Processed Kesterite Solar Cell Based on in Situ Deposition of Ultrathin Absorber Layer. ACS Applied Materials &amp; Interfaces, 2015, 7, 21100-21106. | 4.0 | 28 |

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|---|---|---|---|
| 73 | Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. Energy and Environmental Science, 2015, 8, 629-640. | 15.6 | 285 |
| 74 | Sequential Deposition of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> on Planar NiO Film for Efficient Planar Perovskite Solar Cells. ACS Photonics, 2014, 1, 547-553. | 3.2 | 245 |
| 75 | A dopant-free hole-transporting material for efficient and stable perovskite solar cells. Energy and Environmental Science, 2014, 7, 2963-2967. | 15.6 | 668 |
| 76 | Boosting the Photocurrent Density of p-Type Solar Cells Based on Organometal Halide Perovskite-Sensitized Mesoporous NiO Photocathodes. ACS Applied Materials &amp; Interfaces, 2014, 6, 12609-12617. | 4.0 | 50 |
| 77 | Morphology characterization in organic and hybrid solar cells. Energy and Environmental Science, 2012, 5, 8045. | 15.6 | 379 |
| 78 | Mesogen induced self-assembly for hybrid bulk heterojunction solar cells based on a liquid crystal Dâ€“A copolymer and ZnO nanocrystals. Journal of Materials Chemistry, 2012, 22, 6259. | 6.7 | 25 |
| 79 | Photovoltaic performance enhancement in P3HT/ZnO hybrid bulk-heterojunction solar cells induced by semiconducting liquid crystal ligands. Organic Electronics, 2012, 13, 2757-2762. | 1.4 | 24 |
| 80 | Ordered microstructure induced by orientation behavior of liquid-crystal polythiophene for performance improvement of hybrid solar cells. Solar Energy Materials and Solar Cells, 2012, 96, 266-275. | 3.0 | 33 |
| 81 | Enhancement of the ultraviolet emission of ZnO nanorods by terphenyl liquid-crystalline ligands modification. Applied Surface Science, 2011, 257, 8788-8793. | 3.1 | 15 |