Qi Wei

List of Publications by Year in descending order

93 papers	4,612 citations	159585 30 h-index	106344 65 g-index
97 all docs	97 docs citations	97 times ranked	5084 citing authors

#	Article	IF	Citations
1	Stabilizing black-phase formamidinium perovskite formation at room temperature and high humidity. Science, 2021, 371, 1359-1364.	12.6	508
2	Transcending the slow bimolecular recombination in lead-halide perovskites for electroluminescence. Nature Communications, 2017, 8, 14558.	12.8	473
3	Ultra-high open-circuit voltage of tin perovskite solar cells via an electron transporting layer design. Nature Communications, 2020, 11, 1245.	12.8	408
4	Hydrothermal deposition of antimony selenosulfide thin films enables solar cells with 10% efficiency. Nature Energy, 2020, 5, 587-595.	39.5	338
5	One-Step Synthesis of SnI₂Â·(DMSO)_x Adducts for High-Performance Tin Perovskite Solar Cells. Journal of the American Chemical Society, 2021, 143, 10970-10976.	13.7	280
6	Highly stable hybrid perovskite light-emitting diodes based on Dion-Jacobson structure. Science Advances, 2019, 5, eaaw8072.	10.3	188
7	Multiexcitonic Emission in Zero-Dimensional Cs₂ZrCl₆:Sb³⁺ Perovskite Crystals. Journal of the American Chemical Society, 2021, 143, 17599-17606.	13.7	131
8	Lasing from Mechanically Exfoliated 2D Homologous Ruddlesdenâ€“Popper Perovskite Engineered by Inorganic Layer Thickness. Advanced Materials, 2019, 31, e1903030.	21.0	128
9	Centimeterâ€Sized Single Crystal of Twoâ€Dimensional Halide Perovskites Incorporating Straightâ€Chain Symmetric Diammonium Ion for Xâ€Ray Detection. Angewandte Chemie - International Edition, 2020, 59, 14896-14902.	13.8	124
10	Enhanced Exciton and Photon Confinement in Ruddlesdenâ€“Popper Perovskite Microplatelets for Highly Stable Lowâ€Threshold Polarized Lasing. Advanced Materials, 2018, 30, e1707235.	21.0	101
11	Oriented Nanoâ€“Microstructureâ€Assisted Controllable Fabrication of Metalâ€“Organic Framework Membranes onÂNickel Foam. Advanced Materials, 2016, 28, 2374-2381.	21.0	99
12	Recent Progress in Metal Halide Perovskite Microâ€and Nanolasers. Advanced Optical Materials, 2019, 7, 1900080.	7.3	95
13	Spacer Cation Tuning Enables Vertically Oriented and Graded Quasiâ€2D Perovskites for Efficient Solar Cells. Advanced Functional Materials, 2021, 31, 2008404.	14.9	94
14	Hot-substrate deposition of all-inorganic perovskite films for low-temperature processed high-efficiency solar cells. Journal of Materials Chemistry A, 2019, 7, 2773-2779.	10.3	65
15	Vapor-Phase Incommensurate Heteroepitaxy of Oriented Single-Crystal CsPbBr₃ on GaN: Toward Integrated Optoelectronic Applications. ACS Nano, 2019, 13, 10085-10094.	14.6	59
16	Origin of High Efficiency and Long-Term Stability in Ionic Liquid Perovskite Photovoltaic. Research, 2020, 2020, 2616345.	5.7	59
17	Hâ€Shaped Oligofluorenes for Highly Airâ€Stable and Lowâ€Threshold Nonâ€Doped Deep Blue Lasing. Advanced Materials, 2014, 26, 2937-2942.	21.0	57
18	Efficient recycling of trapped energies for dual-emission in Mn-doped perovskite nanocrystals. Nano Energy, 2018, 51, 704-710.	16.0	54

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19	Self-assembled lead-free double perovskite-MXene heterostructure with efficient charge separation for photocatalytic CO2 reduction. Applied Catalysis B: Environmental, 2022, 312, 121358.	20.2	53
20	Lowâ€Threshold Organic Semiconductor Lasers with the Aid of Phosphorescent Ir(III) Complexes as Triplet Sensitizers. Advanced Functional Materials, 2019, 29, 1806719.	14.9	52
21	Chiral Perovskite Spin-Optoelectronics and Spintronics: Toward Judicious Design and Application. , 2021, 3, 1266-1275.		52
22	Effect of Zincâ€Doping on the Reduction of the Hotâ€Carrier Cooling Rate in Halide Perovskites. Angewandte Chemie - International Edition, 2021, 60, 10957-10963.	13.8	50
23	Lowâ€Dimensional Inorganic Tin Perovskite Solar Cells Prepared by Templated Growth. Angewandte Chemie - International Edition, 2021, 60, 16330-16336.	13.8	48
24	Super air stable quasi-2D organic-inorganic hybrid perovskites for visible light-emitting diodes. Optics Express, 2018, 26, A66.	3.4	46
25	Enhanced Performance of Perovskite Light-Emitting Diodes via Diamine Interface Modification. ACS Applied Materials & Interfaces, 2019, 11, 29132-29138.	8.0	42
26	Facile deposition of high-quality Cs2AgBiBr6 films for efficient double perovskite solar cells. Science China Materials, 2020, 63, 1518-1525.	6.3	41
27	Stable and Efficient Blueâ€Emitting CsPbBr₃ Nanoplatelets with Potassium Bromide Surface Passivation. Small, 2021, 17, e2101359.	10.0	41
28	Multiple exciton generation in tinâ€“lead halide perovskite nanocrystals for photocurrent quantum efficiency enhancement. Nature Photonics, 2022, 16, 485-490.	31.4	40
29	Host Exciton Confinement for Enhanced FÃ¶rsterâ€Transferâ€Blend Gain Media Yielding Highly Efficient Yellowâ€Green Lasers. Advanced Functional Materials, 2018, 28, 1705824.	14.9	39
30	Cs0.15FA0.85PbI3/CsxFA1-xPbI3 Core/Shell Heterostructure for Highly Stable and Efficient Perovskite Solar Cells. Cell Reports Physical Science, 2020, 1, 100224.	5.6	35
31	Twoâ€Photon Optical Properties in Individual Organicâ€“Inorganic Perovskite Microplates. Advanced Optical Materials, 2017, 5, 1700809.	7.3	33
32	Over 1ÂÎ¼m electron-hole diffusion lengths in CsPbI2Br for high efficient solar cells. Journal of Power Sources, 2020, 454, 227913.	7.8	31
33	A High Performance Deep Blue Organic Laser Gain Material. Advanced Optical Materials, 2017, 5, 1601003.	7.3	29
34	Unveiling the Effects of Interchain Hydrogen Bonds on Solution Gelation and Mechanical Properties of Diarylfluorene-Based Semiconductor Polymers. Research, 2020, 2020, 3405826.	5.7	29
35	Vibronic coherence contributes to photocurrent generation in organic semiconductor heterojunction diodes. Nature Communications, 2020, 11, 617.	12.8	28
36	Efficient and stable Ruddlesden-Popper layered tin-based perovskite solar cells enabled by ionic liquid-bulky spacers. Science China Chemistry, 2021, 64, 1577-1585.	8.2	26

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37	Toward high efficiency tin perovskite solar cells: A perspective. Applied Physics Letters, 2020, 117, .	3.3	25
38	Two-dimensional tin perovskite nanoplate for pure red light-emitting diodes. Journal Physics D: Applied Physics, 2020, 53, 414005.	2.8	25
39	Suppressing Strong Excitonâ€“Phonon Coupling in Blue Perovskite Nanoplatelet Solids by Binary Systems. Angewandte Chemie - International Edition, 2020, 59, 22156-22162.	13.8	24
40	Efficient and Stable Perovskite Solar Cells by Fluorinated Ionic Liquidâ€“Induced Component Interaction. Solar Rrl, 2021, 5, .	5.8	24
41	Controlling the film structure by regulating 2D Ruddlesdenâ€“Popper perovskite formation enthalpy for efficient and stable tri-cation perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 5874-5881.	10.3	23
42	Universal Strategy for Cheap and Colorâ€Stable Singleâ€EML WOLEDs Utilizing Two Complementaryâ€Color Nondoped Emitters without Energy Transfer. Advanced Optical Materials, 2014, 2, 938-944.	7.3	21
43	Enhanced Electrochemical Stability by Alkyldiammonium in Dionâ€“Jacobson Perovskite toward Ultrastable Lightâ€Emitting Diodes. Advanced Optical Materials, 2021, 9, 2100243.	7.3	21
44	Unconventional solution-phase epitaxial growth of organic-inorganic hybrid perovskite nanocrystals on metal sulfide nanosheets. Science China Materials, 2019, 62, 43-53.	6.3	20
45	Two-Dimensional Bi₂Sr₂CaCu₂O_{8+Î´} Nanosheets for Ultrafast Photonics and Optoelectronics. ACS Nano, 2021, 15, 8919-8929.	14.6	20
46	Crystal face dependent charge carrier extraction in TiO2/perovskite heterojunctions. Nano Energy, 2020, 67, 104227.	16.0	19
47	Toward Efficient and Stable Perovskite Solar Cells by 2D Interface Energy Band Alignment. Advanced Materials Interfaces, 2021, 8, .	3.7	19
48	The 3D-structure-mediated growth of zero-dimensional Cs₄SnX₆ nanocrystals. Nanoscale, 2022, 14, 2248-2255.	5.6	19
49	Allâ€Inorganic Perovskite Nanocrystalsâ€Based Light Emitting Diodes and Solar Cells. ChemNanoMat, 2019, 5, 266-277.	2.8	18
50	Low Threshold Fabryâ€“PÃ©rot Mode Lasing from Lead Iodide Trapezoidal Nanoplatelets. Small, 2018, 14, e1801938.	10.0	17
51	Tailoring the Surface Morphology and Phase Distribution for Efficient Perovskite Electroluminescence. Journal of Physical Chemistry Letters, 2020, 11, 5877-5882.	4.6	17
52	Overcoming the Limitation of Cs₂AgBiBr₆ Double Perovskite Solar Cells Through Using Mesoporous TiO₂ Electron Extraction Layer. Energy and Environmental Materials, 2022, 5, 1317-1322.	12.8	17
53	Morphology Control of Doped Spiroâ€MeOTAD Films for Air Stable Perovskite Solar Cells. Small, 2020, 16, e1907513.	10.0	16
54	Dimeric SFX host materials for red, green and blue phosphorescent organic light-emitting devices. Synthetic Metals, 2014, 195, 321-327.	3.9	15

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55	Photoluminescence Emission during Photoreduction of Graphene Oxide Sheets as Investigated with Single-Molecule Microscopy. Journal of Physical Chemistry C, 2020, 124, 7914-7921.	3.1	15
56	Theoretical Study of Using Kinetics Strategy to Enhance the Stability of Tin Perovskite. Energy and Environmental Materials, 2020, 3, 541-547.	12.8	13
57	High Visibleâ€Lightâ€Stimulated Plasticity in Optoelectronic Synaptic Transistors for Irradiation Historyâ€Dependent Learning. Advanced Electronic Materials, 2020, 6, 1901255.	5.1	13
58	Lowâ€Dimensional Inorganic Tin Perovskite Solar Cells Prepared by Templated Growth. Angewandte Chemie, 2021, 133, 16466-16472.	2.0	13
59	Photo-induced storage and mask-free arbitrary micro-patterning in solution-processable and simple-structured photochromic organic light-emitting diodes. Organic Electronics, 2015, 26, 476-480.	2.6	12
60	Concurrent Optical Gain Optimization and Electrical Tuning in Novel Oligomer:Polymer Blends with Yellowâ€Green Laser Emission. Advanced Science, 2019, 6, 1801455.	11.2	12
61	Synergistic Interplay between Asymmetric Backbone Conformation, Molecular Aggregation, and Charge-Carrier Dynamics in Fused-Ring Electron Acceptor-Based Bulk Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 2961-2970.	8.0	12
62	Diarylfluorene Flexible Pendant Functionalization of Polystyrene for Efficient and Stable Deep-Blue Polymer Light-Emitting Diodes. Macromolecules, 2021, 54, 6525-6533.	4.8	12
63	Giant Spin Splitting in Chiral Perovskites Based on Local Electrical Field Engineering. Journal of Physical Chemistry Letters, 2021, 12, 6492-6498.	4.6	12
64	Large Photomultiplication by Charge-Self-Trapping for High-Response Quantum Dot Infrared Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 14783-14790.	8.0	12
65	Centimeterâ€Sized Single Crystal of Twoâ€Dimensional Halide Perovskites Incorporating Straightâ€Chain Symmetric Diammonium Ion for Xâ€Ray Detection. Angewandte Chemie, 2020, 132, 15006-15012.	2.0	11
66	Trapâ€Fillingâ€Induced Charge Carrier Dynamics in Organic Solar Cells. Advanced Optical Materials, 2018, 6, 1800027.	7.3	10
67	Phase Tailoring of Ruddlesdenâ€“Popper Perovskite at Fixed Large Spacer Cation Ratio. Small, 2021, 17, e2100560.	10.0	10
68	Near-Infrared-Excitable Organic Ultralong Phosphorescence through Multiphoton Absorption. Research, 2020, 2020, 2904928.	5.7	10
69	Insight into the Enhanced Charge Transport in Quasi-2D Perovskite via Fluorination of Ammonium Cations for Photovoltaic Applications. ACS Applied Materials & Interfaces, 2022, 14, 7917-7925.	8.0	9
70	Stabilizing wide-bandgap halide perovskites through hydrogen bonding. Science China Chemistry, 2022, 65, 1650-1660.	8.2	9
71	Arylfluorene based universal hosts for solution-processed RGB and white phosphorescent organic light-emitting devices. RSC Advances, 2015, 5, 94077-94083.	3.6	8
72	Large-Size and Polarization-Sensitive Two-Dimensional Sn Perovskite Single Crystals. , 2022, 4, 987-994.		8

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73	Highâ€Performance Organic Fieldâ€Effect Transistor with Matching Energyâ€Band Alignment between Organic Semiconductor and the Chargeâ€Trapping Dielectric. Advanced Electronic Materials, 2019, 5, 1800865.	5.1	7
74	Isolated asymmetric bilateral steric conjugated polymers with thickness-independent emission for efficient and stable light-emitting optoelectronic devices. Journal of Materials Chemistry C, 2020, 8, 5064-5070.	5.5	7
75	Enhancement of morphological and emission stability of deep-blue small molecular emitter via a universal side-chain coupling strategy for optoelectronic device. Chinese Chemical Letters, 2022, 33, 835-841.	9.0	7
76	Suppressed Phase Segregation in Highâ€Humidityâ€Processed Dionâ€“Jacobson Perovskite Solar Cells Toward High Efficiency and Stability. Solar Rrl, 2021, 5, 2100555.	5.8	6
77	Suppressing the defects in cesium-based perovskites via polymeric interlayer assisted crystallization control. Journal of Materials Chemistry A, 2021, 9, 26149-26158.	10.3	6
78	Fluoreneâ€based rib waveguides with optimized geometry for longâ€term amplified spontaneous emission stability. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 1040-1045.	2.1	5
79	Charge Carrier Dynamics and Broad Wavelength Tunable Amplified Spontaneous Emission in Zn_xCd_{1â€“x}Se Nanowires. Journal of Physical Chemistry Letters, 2019, 10, 7516-7522.	4.6	5
80	Origin of Intramolecular Lowâ€Threshold Amplified Spontaneous Emission. Advanced Optical Materials, 2021, 9, 2001956.	7.3	5
81	Gain Bandwidth Engineering in Polymer Blends for Fullâ€Colorâ€Tunable Lasers. Advanced Optical Materials, 2022, 10, .	7.3	5
82	Enhancing the Deep-Blue Emission Property of Wide Bandgap Conjugated Polymers through a Self-Cross-Linking Strategy. ACS Applied Polymer Materials, 2022, 4, 2283-2293.	4.4	4
83	A Molecular Design Principle for Pure-Blue Light-Emitting Polydiarylfluorene with Suppressed Defect Emission by the Side-Chain Steric Hindrance Effect. Macromolecules, 2022, 55, 3335-3343.	4.8	4
84	Deep Blue Laser Gain Medium Based on Triphenylamine Substituted Arylfluorene With Improved Photo-Stability. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 15-20.	2.9	3
85	Elucidating the Role of Substrates on Domain Distribution of Quasi-2D Perovskites for Blue Light-Emitting Diodes. ACS Applied Electronic Materials, 2021, 3, 4056-4065.	4.3	3
86	Lowâ€“threshold sky-blue gain medium from a Triazine-capped ladder-type oligomer neat film. Organic Electronics, 2020, 76, 105452.	2.6	2
87	Suppressing Strong Excitonâ€“Phonon Coupling in Blue Perovskite Nanoplatelet Solids by Binary Systems. Angewandte Chemie, 2020, 132, 22340-22346.	2.0	2
88	Effect of Zincâ€Doping on the Reduction of the Hotâ€Carrier Cooling Rate in Halide Perovskites. Angewandte Chemie, 2021, 133, 11052-11058.	2.0	2
89	Lasing: Host Exciton Confinement for Enhanced FÃ¶rster-Transfer-Blend Gain Media Yielding Highly Efficient Yellow-Green Lasers (Adv. Funct. Mater. 17/2018). Advanced Functional Materials, 2018, 28, 1870115.	14.9	1
90	Nonlinear Infrared Photodetection Based on Strong Nondegenerate Twoâ€Photon Absorption of Perovskite Single Crystal. Advanced Optical Materials, 2022, 10, .	7.3	1

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91	Ball Robot and the Graphics Generation and its Image Calculation Based on CAD Geometric Model. , 2009, , .		0
92	Frontispiz: Lowâ€Dimensional Inorganic Tin Perovskite Solar Cells Prepared by Templated Growth. Angewandte Chemie, 2021, 133, .	2.0	0
93	Frontispiece: Lowâ€Dimensional Inorganic Tin Perovskite Solar Cells Prepared by Templated Growth. Angewandte Chemie - International Edition, 2021, 60, .	13.8	0