Kai Wang

List of Publications by Year
in descending order

61 papers	5,432 citations	87888 38 h-index	114465 63 g-index
67 all docs	67 docs citations	67 times ranked	7703 citing authors

#	Article	IF	Citations
1	Probe of the excitonic transitions and lifetimes in quasi-2D organicâ€“inorganic halide perovskites. AIP Advances, 2022, 12, .	1.3	2
2	Homogenization of Optical Field in Nanocrystal-Embedded Perovskite Composites. ACS Energy Letters, 2022, 7, 1657-1671.	17.4	4
3	Selfâ€Powered Red/UV Narrowband Photodetector by Unbalanced Charge Carrier Transport Strategy. Advanced Functional Materials, 2021, 31, 2007016.	14.9	44
4	â€œOne-key-resetâ€•recycling of whole perovskite solar cell. Matter, 2021, 4, 2522-2541.	10.0	31
5	Cost-Effective High-Performance Charge-Carrier-Transport-Layer-Free Perovskite Solar Cells Achieved by Suppressing Ion Migration. ACS Energy Letters, 2021, 6, 3044-3052.	17.4	65
6	Bio-inspired strategies for next-generation perovskite solar mobile power sources. Chemical Society Reviews, 2021, 50, 12915-12984.	38.1	15
7	High performance perovskites solar cells by hybrid perovskites co-crystallized with poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overloc	16.0	46
8	Artemisinin (ART)-Induced â€œperovskite/perovskiteâ€•bilayer structured photovoltaics. Nano Energy, 2020, 78, 105133.	16.0	30
9	Two-dimensional hybrid organicâ€“inorganic perovskites as emergent ferroelectric materials. Journal of Applied Physics, 2020, 128, .	2.5	30
10	Isothermally crystallized perovskites at room-temperature. Energy and Environmental Science, 2020, 13, 3412-3422.	30.8	153
11	A Nonionic and Low-Entropic MA(MMA)nPbI3-Ink for Fast Crystallization of Perovskite Thin Films. Joule, 2020, 4, 615-630.	24.0	46
12	Organismic materials for beyond von Neumann machines. Applied Physics Reviews, 2020, 7, .	11.3	30
13	Multifunctional nanostructured materials for next generation photovoltaics. Nano Energy, 2020, 70, 104480.	16.0	52
14	Pitch Gradation by Ion-Dragging Effect in Polymer-Stabilized Cholesteric Liquid Crystal Reflector Device. Polymers, 2020, 12, 96.	4.5	12
15	Nature of terrace edge states (TES) in lower-dimensional halide perovskite. Journal of Materials Chemistry A, 2020, 8, 7659-7670.	10.3	14
16	Melaninâ€“Perovskite Composites for Photothermal Conversion. Advanced Energy Materials, 2019, 9, 1901753.	19.5	42
17	Distinct conducting layer edge states in two-dimensional (2D) halide perovskite. Science Advances, 2019, 5, eaau3241.	10.3	62
18	Recent progress in fundamental understanding of halide perovskite semiconductors. Progress in Materials Science, 2019, 106, 100580.	32.8	95

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19	Monocrystalline perovskite wafers/thin films for photovoltaic and transistor applications. Journal of Materials Chemistry A, 2019, 7, 24661-24690.	10.3	27
20	Solution-Processed Ultrahigh Detectivity Photodetectors by Hybrid Perovskite Incorporated with Heterovalent Neodymium Cations. ACS Omega, 2019, 4, 15873-15878.	3.5	13
21	Enhanced Performance and Stability in DNA-Perovskite Heterostructure-Based Solar Cells. ACS Energy Letters, 2019, 4, 2646-2655.	17.4	45
22	Ultrahigh Durability Perovskite Solar Cells. Nano Letters, 2019, 19, 1251-1259.	9.1	30
23	Nonionic Sc₃N@C₈₀ Dopant for Efficient and Stable Halide Perovskite Photovoltaics. ACS Energy Letters, 2019, 4, 1852-1861.	17.4	46
24	Stable Efficiency Exceeding 20.6% for Inverted Perovskite Solar Cells through Polymer-Optimized PCBM Electron-Transport Layers. Nano Letters, 2019, 19, 3313-3320.	9.1	181
25	Efficient perovskite solar cells by hybrid perovskites incorporated with heterovalent neodymium cations. Nano Energy, 2019, 61, 352-360.	16.0	89
26	Fullerene Polymer Complex Inducing Dipole Electric Field for Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1804419.	14.9	42
27	Mono-crystalline Perovskite Photovoltaics toward Ultrahigh Efficiency?. Joule, 2019, 3, 311-316.	24.0	43
28	Quasi-Two-Dimensional Halide Perovskite Single Crystal Photodetector. ACS Nano, 2018, 12, 4919-4929.	14.6	252
29	All electrospray printed perovskite solar cells. Nano Energy, 2018, 53, 440-448.	16.0	46
30	Wideâ€Bandgap Perovskite Solar Cells With Large Openâ€Circuit Voltage of 1653â€‰mV Through Interfacial Engineering. Solar Rrl, 2018, 2, 1800083.	5.8	67
31	High efficiency planar-type perovskite solar cells with negligible hysteresis using EDTA-complexed SnO2. Nature Communications, 2018, 9, 3239.	12.8	1,017
32	Efficient Polymer Solar Cells by Lithium Sulfonated Polystyrene as a Charge Transport Interfacial Layer. ACS Applied Materials & Interfaces, 2017, 9, 5348-5357.	8.0	33
33	Ni_{0.85}Se@MoSe₂ Nanosheet Arrays as the Electrode for High-Performance Supercapacitors. ACS Applied Materials & Interfaces, 2017, 9, 17067-17075.	8.0	220
34	Ionic liquid induced surface trap-state passivation for efficient perovskite hybrid solar cells. Organic Electronics, 2017, 41, 42-48.	2.6	45
35	Inverted polymer solar cells with Zn 2 SnO 4 nanoparticles as the electron extraction layer. Chinese Chemical Letters, 2017, 28, 1755-1759.	9.0	3
36	Perovskite hybrid solar cells with a fullerene derivative electron extraction layer. Journal of Materials Chemistry C, 2017, 5, 4190-4197.	5.5	24

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37	Radical polymers as interfacial layers in inverted hybrid perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 23831-23839.	10.3	44
38	Efficient Perovskite Hybrid Solar Cells by Highly Electrical Conductive PEDOT:PSS Hole Transport Layer. Advanced Energy Materials, 2016, 6, 1501773.	19.5	133
39	Inverted organic photovoltaic cells. Chemical Society Reviews, 2016, 45, 2937-2975.	38.1	185
40	PbS quantum dots-induced trap-assisted charge injection in perovskite photodetectors. Nano Energy, 2016, 30, 27-35.	16.0	91
41	Moderately reduced graphene oxide/PEDOT:PSS as hole transport layer to fabricate efficient perovskite hybrid solar cells. Organic Electronics, 2016, 39, 288-295.	2.6	42
42	High Performance Perovskite Hybrid Solar Cells with E-beam-Processed TiO_x Electron Extraction Layer. ACS Applied Materials & Interfaces, 2016, 8, 1876-1883.	8.0	40
43	Low bandgap semiconducting polymers for polymeric photovoltaics. Chemical Society Reviews, 2016, 45, 4825-4846.	38.1	461
44	Efficient Perovskite Hybrid Solar Cells via Ionomer Interfacial Engineering. Advanced Functional Materials, 2015, 25, 6875-6884.	14.9	57
45	Design of TiO₂@graphene nanosheets with rough surface and its reinforcement to polyarylene ether nitriles. Polymers for Advanced Technologies, 2015, 26, 1267-1274.	3.2	1
46	Polymer-based composites with improved energy density and dielectric constants by monoaxial hot-stretching for organic film capacitor applications. RSC Advances, 2015, 5, 51975-51982.	3.6	9
47	Efficient Perovskite Hybrid Solar Cells Through a Homogeneous Highâ€Quality Organolead Iodide Layer. Small, 2015, 11, 3369-3376.	10.0	47
48	Single-Junction Polymer Solar Cells with Over 10% Efficiency by a Novel Two-Dimensional Donorâ€“Acceptor Conjugated Copolymer. ACS Applied Materials & Interfaces, 2015, 7, 4928-4935.	8.0	256
49	Bulk heterojunction perovskite hybrid solar cells with large fill factor. Energy and Environmental Science, 2015, 8, 1245-1255.	30.8	252
50	Preparation of TiO₂â€“MWCNT core/shell heterostructures containing a single MWCNT and their electromagnetic properties. Composite Interfaces, 2015, 22, 343-351.	2.3	4
51	Ultrasensitive solution-processed perovskite hybrid photodetectors. Journal of Materials Chemistry C, 2015, 3, 6600-6606.	5.5	104
52	Polyaniline-Modified Oriented Graphene Hydrogel Film as the Free-Standing Electrode for Flexible Solid-State Supercapacitors. ACS Applied Materials & Interfaces, 2015, 7, 23932-23940.	8.0	77
53	Efficient Perovskite Hybrid Solar Cells via Controllable Crystallization Film Morphology. IEEE Journal of Photovoltaics, 2015, 5, 1402-1407.	2.5	4
54	Ultrasensitive solution-processed broad-band photodetectors using CH₃NH₃PbI₃perovskite hybrids and PbS quantum dots as light harvesters. Nanoscale, 2015, 7, 16460-16469.	5.6	106

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55	High Performance Planar Heterojunction Perovskite Solar Cells with Fullerene Derivatives as the Electron Transport Layer. ACS Applied Materials & Interfaces, 2015, 7, 1153-1159.	8.0	99
56	High-detectivity inverted near-infrared polymer photodetectors using cross-linkable conjugated polyfluorene as an electron extraction layer. Journal of Materials Chemistry C, 2014, 2, 9592-9598.	5.5	38
57	Enhanced Performance of Polymer Solar Cells using PEDOT:PSS Doped with Fe₃O₄ Magnetic Nanoparticles Aligned by an External Magnetostatic Field as an Anode Buffer Layer. ACS Applied Materials & Interfaces, 2014, 6, 13201-13208.	8.0	30
58	Molecular Weight Effect on the Efficiency of Polymer Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 12163-12167.	8.0	111
59	Solution-Processed Fe₃O₄ Magnetic Nanoparticle Thin Film Aligned by an External Magnetostatic Field as a Hole Extraction Layer for Polymer Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 10325-10330.	8.0	51
60	Effect of Oligothiophene Ï€-Bridge Length on the Photovoltaic Properties of Dâ€“A Copolymers Based on Carbazole and Quinoxalinoporphyrin. Macromolecules, 2012, 45, 7806-7814.	4.8	54
61	Localized Electron Density Engineering for Stabilized B-Î³ CsSnI₃-Based Perovskite Solar Cells with Efficiencies >10%. ACS Energy Letters, 0, , 1480-1489.	17.4	125