

Qingfeng Dong

List of Publications by Year in descending order

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90
papers

20,410
citations

57758

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h-index

48315

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docs citations

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times ranked

17122
citing authors

#	ARTICLE	IF	CITATIONS
1	Electron-hole diffusion lengths $> 175 \mu\text{m}$ in solution-grown $\text{CH}_3\text{NH}_3\text{PbI}_3$ single crystals. <i>Science</i> , 2015, 347, 967-970.	12.6	4,642
2	Solvent Annealing of Perovskite-Induced Crystal Growth for Photovoltaic Device Efficiency Enhancement. <i>Advanced Materials</i> , 2014, 26, 6503-6509.	21.0	1,527
3	Giant switchable photovoltaic effect in organometal trihalide perovskite devices. <i>Nature Materials</i> , 2015, 14, 193-198.	27.5	1,372
4	Highly narrowband perovskite single-crystal photodetectors enabled by surface-charge recombination. <i>Nature Photonics</i> , 2015, 9, 679-686.	31.4	1,201
5	Efficient, high yield perovskite photovoltaic devices grown by interdiffusion of solution-processed precursor stacking layers. <i>Energy and Environmental Science</i> , 2014, 7, 2619-2623.	30.8	1,154
6	Grain boundary dominated ion migration in polycrystalline organic-inorganic halide perovskite films. <i>Energy and Environmental Science</i> , 2016, 9, 1752-1759.	30.8	917
7	Large fill-factor bilayer iodine perovskite solar cells fabricated by a low-temperature solution-process. <i>Energy and Environmental Science</i> , 2014, 7, 2359-2365.	30.8	754
8	Scaling behavior of moisture-induced grain degradation in polycrystalline hybrid perovskite thin films. <i>Energy and Environmental Science</i> , 2017, 10, 516-522.	30.8	720
9	A nanocomposite ultraviolet photodetector based on interfacial trap-controlled charge injection. <i>Nature Nanotechnology</i> , 2012, 7, 798-802.	31.5	634
10	Scalable fabrication of efficient organolead trihalide perovskite solar cells with doctor-bladed active layers. <i>Energy and Environmental Science</i> , 2015, 8, 1544-1550.	30.8	606
11	High-Gain and Low-Driving Voltage Photodetectors Based on Organolead Triiodide Perovskites. <i>Advanced Materials</i> , 2015, 27, 1912-1918.	21.0	560
12	Thin Insulating Tunneling Contacts for Efficient and Water-Resistant Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 6734-6739.	21.0	533
13	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. <i>Nature Communications</i> , 2017, 8, 1890.	12.8	467
14	Enhancing stability and efficiency of perovskite solar cells with crosslinkable silane-functionalized and doped fullerene. <i>Nature Communications</i> , 2016, 7, 12806.	12.8	350
15	Ultrafast ion migration in hybrid perovskite polycrystalline thin films under light and suppression in single crystals. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 30484-30490.	2.8	322
16	Air-Stable, Efficient Mixed-Cation Perovskite Solar Cells with Cu Electrode by Scalable Fabrication of Active Layer. <i>Advanced Energy Materials</i> , 2016, 6, 1600372.	19.5	275
17	$\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskites: Ferroelasticity revealed. <i>Science Advances</i> , 2017, 3, e1602165.	10.3	257
18	Abnormal crystal growth in $\text{CH}_3\text{NH}_3\text{PbI}_3$ using a multi-cycle solution coating process. <i>Energy and Environmental Science</i> , 2015, 8, 2464-2470.	30.8	240

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19	Efficient Semitransparent Perovskite Solar Cells for 23.0% Efficiency Perovskite/Silicon Four-Terminal Tandem Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1601128.	19.5	240
20	Composition Engineering in Doctor-Blading of Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700302.	19.5	239
21	Charge Carrier Lifetimes Exceeding 15 ns in Methylammonium Lead Iodide Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 923-928.	4.6	226
22	Organometal Trihalide Perovskite Single Crystals: A Next Wave of Materials for 25% Efficiency Photovoltaics and Applications Beyond?. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3218-3227.	4.6	220
23	Quantification of re-absorption and re-emission processes to determine photon recycling efficiency in perovskite single crystals. <i>Nature Communications</i> , 2017, 8, 14417.	12.8	189
24	An Ultraviolet-to-NIR Broad Spectral Nanocomposite Photodetector with Gain. <i>Advanced Optical Materials</i> , 2014, 2, 549-554.	7.3	183
25	Chloride Incorporation Process in CH ₃ NH ₃ PbI ₃ -xCl _x Perovskites via Nanoscale Bandgap Maps. <i>Nano Letters</i> , 2015, 15, 8114-8121.	9.1	165
26	Lateral-Structure Single-Crystal Hybrid Perovskite Solar Cells via Piezoelectric Poling. <i>Advanced Materials</i> , 2016, 28, 2816-2821.	21.0	144
27	Large electrostrictive response in lead halide perovskites. <i>Nature Materials</i> , 2018, 17, 1020-1026.	27.5	137
28	Efficient lateral-structure perovskite single crystal solar cells with high operational stability. <i>Nature Communications</i> , 2020, 11, 274.	12.8	120
29	Efficient and Stable Red Perovskite Light-Emitting Diodes with Operational Stability >300 h. <i>Advanced Materials</i> , 2021, 33, e2008820.	21.0	119
30	Thin-film semiconductor perspective of organometal trihalide perovskite materials for high-efficiency solar cells. <i>Materials Science and Engineering Reports</i> , 2016, 101, 1-38.	31.8	117
31	Solution-Processed Fullerene-Based Organic Schottky Junction Devices for Large-Open-Circuit-Voltage Organic Solar Cells. <i>Advanced Materials</i> , 2013, 25, 572-577.	21.0	101
32	Design and synthesis of solution processable small molecules towards high photovoltaic performance. <i>Journal of Materials Chemistry</i> , 2011, 21, 2159-2168.	6.7	81
33	Distinct Exciton Dissociation Behavior of Organolead Trihalide Perovskite and Excitonic Semiconductors Studied in the Same System. <i>Small</i> , 2015, 11, 2164-2169.	10.0	78
34	All-spin-coating vacuum-free processed semi-transparent inverted polymer solar cells with PEDOT:PSS anode and PAH-D interfacial layer. <i>Organic Electronics</i> , 2010, 11, 1327-1331.	2.6	76
35	Elimination of Interfacial Electrochemical Reaction-Induced Polarization in Perovskite Single Crystals for Ultrasensitive and Stable X-Ray Detector Arrays. <i>Advanced Materials</i> , 2021, 33, e2103078.	21.0	69
36	Unraveling the hidden function of a stabilizer in a precursor in improving hybrid perovskite film morphology for high efficiency solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 867-872.	30.8	62

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37	Fast Growth of Thin MAPbI ₃ Crystal Wafers on Aqueous Solution Surface for Efficient Lateral-Structure Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1807707.	14.9	62
38	Atomistic Surface Passivation of CH ₃ NH ₃ PbI ₃ Perovskite Single Crystals for Highly Sensitive Coplanar-Structure X-Ray Detectors. <i>Research</i> , 2020, 2020, 5958243.	5.7	60
39	One-step solution synthesis of bismuth sulfide (Bi ₂ S ₃) with various hierarchical architectures and their photoresponse properties. <i>RSC Advances</i> , 2012, 2, 234-240.	3.6	59
40	Dynamic Passivation in Perovskite Quantum Dots for Specific Ammonia Detection at Room Temperature. <i>Small</i> , 2020, 16, e1904462.	10.0	58
41	Solution synthesis of copper selenide nanocrystals and their electrical transport properties. <i>CrystEngComm</i> , 2012, 14, 2139.	2.6	54
42	Modulating the optical and electrical properties of MAPbBr ₃ single crystals via voltage regulation engineering and application in memristors. <i>Light: Science and Applications</i> , 2020, 9, 111.	16.6	51
43	Synthesis and Application of Ferroelectric P(VDF-TrFE) Nanoparticles in Organic Photovoltaic Devices for High Efficiency. <i>Advanced Energy Materials</i> , 2013, 3, 1581-1588.	19.5	50
44	“Green” polymer solar cell based on water-soluble poly [3-(potassium-6-hexanoate) thiophene-2, 5-diyl] and aqueous-dispersible noncovalent functionalized graphene sheets. <i>Solar Energy Materials and Solar Cells</i> , 2012, 97, 28-33.	6.2	48
45	Efficiency enhancement of polymer solar cells by incorporating a self-assembled layer of silver nanodisks. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 3281-3286.	6.2	45
46	Donor-Acceptor Molecule as the Acceptor for Polymer-Based Bulk Heterojunction Solar Cells. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7882-7886.	3.1	43
47	Improving the sensitivity of a near-infrared nanocomposite photodetector by enhancing trap induced hole injection. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	43
48	New amorphous small molecules—Synthesis, characterization and their application in bulk heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 2272-2280.	6.2	42
49	Ultrathin Perovskite Monocrystals Boost the Solar Cell Performance. <i>Advanced Energy Materials</i> , 2020, 10, 2000453.	19.5	42
50	A low band gap donor-acceptor copolymer containing fluorene and benzothiadiazole units: synthesis and photovoltaic properties. <i>New Journal of Chemistry</i> , 2011, 35, 385-393.	2.8	38
51	Thermal Dynamic Self-Healing Supramolecular Dopant Towards Efficient and Stable Flexible Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	38
52	Stable and Highly Flexible Perovskite Solar Cells with Power Conversion Efficiency Approaching 20% by Elastic Grain Boundary Encapsulation. <i>CCS Chemistry</i> , 2021, 3, 2035-2044.	7.8	37
53	Vacuum-free laminated top electrode with conductive tapes for scalable manufacturing of efficient perovskite solar cells. <i>Nano Energy</i> , 2015, 16, 47-53.	16.0	36
54	Aqueous-Solution-Processed Hybrid Solar Cells from Poly(1,4-naphthalenevinylene) and CdTe Nanocrystals. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 2919-2923.	8.0	32

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55	A benzo[1,2-b:4,5-b']dithiophene-based copolymer with deep HOMO level for efficient polymer solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2012, 100, 239-245.	6.2	30
56	Synthesis, photophysical and photovoltaic properties of star-shaped molecules with triphenylamine as core and phenylethenylthiophene or dithienylethylene as arms. <i>Solar Energy Materials and Solar Cells</i> , 2009, 93, 1952-1958.	6.2	28
57	Reducing photovoltage loss at the anode contact of methylammonium-free inverted perovskite solar cells by conjugated polyelectrolyte doping. <i>Journal of Materials Chemistry A</i> , 2020, 8, 7309-7316.	10.3	28
58	Synthesis of Cu ₂ Se Nanocrystals by Tuning the Reactivity of Se. <i>Journal of Physical Chemistry C</i> , 2011, 115, 9909-9916.	3.1	26
59	Synthesis and photovoltaic properties of low-bandgap 4,7-dithienyl-1,3-benzothiadiazole-based poly(heteroarylenevinylene)s. <i>Journal of Polymer Science Part A</i> , 2011, 49, 2715-2724.	2.3	26
60	Low-Temperature Solution-Processed Mg:SnO ₂ Nanoparticles as an Effective Cathode Interfacial Layer for Inverted Polymer Solar Cell. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 6702-6710.	6.7	25
61	Zinc alloyed iron pyrite ternary nanocrystals for band gap broadening. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12060.	10.3	22
62	Hole Extraction Enhancement for Efficient Polymer Solar Cells with Boronic Acid Functionalized Carbon Nanotubes doped Hole Transport Layers. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 5122-5131.	6.7	20
63	Ionogel-perovskite matrix enabling highly efficient and stable flexible solar cells towards fully-R2R fabrication. <i>Energy and Environmental Science</i> , 2022, 15, 3439-3448.	30.8	20
64	Reducing Photovoltage Loss in Inverted Perovskite Solar Cells by Quantum Dots Alloying Modification at Cathode Contact. <i>Solar Rrl</i> , 2020, 4, 1900468.	5.8	19
65	All-water-solution processed solar cells based on PPV and TiO ₂ nanocrystals. <i>Solar Energy Materials and Solar Cells</i> , 2012, 104, 75-80.	6.2	17
66	Multiple Hydrogen Bond-Induced Structural Distortion for Broadband White-Light Emission in Two-Dimensional Perovskites. <i>CCS Chemistry</i> , 2021, 3, 2576-2583.	7.8	17
67	Thermochromic Cs ₂ AgBiBr ₆ Single Crystal with Decreased Band Gap through Order-Disorder Transition. <i>Small</i> , 2022, 18, e2201943.	10.0	15
68	Thermal Shock Fabrication of Ion-Stabilized Perovskite and Solar Cells. <i>Advanced Materials</i> , 2022, 34, .	21.0	15
69	Surface thermal stability of iron pyrite nanocrystals: Role of capping ligands. <i>Thin Solid Films</i> , 2014, 562, 361-366.	1.8	14
70	Stable, Efficient Near-Infrared Light-Emitting Diodes Enabled by π - π' Phase Modulation. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 2101-2107.	4.6	14
71	Solution-Processed Nanoparticle Super-Float-Gated Organic Field-Effect Transistor as Un-cooled Ultraviolet and Infrared Photon Counter. <i>Scientific Reports</i> , 2013, 3, 2707.	3.3	13
72	A two-step method combining electrodepositing and spin-coating for solar cell processing. <i>Journal of Solid State Electrochemistry</i> , 2010, 14, 1051-1056.	2.5	12

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73	Guanidine-templated Manganese Halides Single Crystals toward Efficient Mechanoluminescence and Photoluminescence by Supramolecular Interactions Modulation. <i>Advanced Optical Materials</i> , 2021, 9, 2100862.	7.3	12
74	Enhancing the Efficiency and Stability of CsPbI ₃ Nanocrystal-Based Light-Emitting Diodes through Ligand Engineering with Octylamine. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1085-1093.	3.1	12
75	New 4,7-dithienebenzothiadiazole derivatives with cyano-vinylene bonds: Synthesis, photophysics and photovoltaics. <i>Synthetic Metals</i> , 2009, 159, 1471-1477.	3.9	11
76	An efficient photovoltaic device based on novel D ⁺ -A ⁻ D solution-processable small molecules. <i>Journal of Materials Science</i> , 2015, 50, 937-947.	3.7	11
77	Novel solution processable small molecule containing new electron-withdrawing group and oligothiophene for photovoltaic applications. <i>Solar Energy Materials and Solar Cells</i> , 2012, 98, 343-350.	6.2	10
78	Influence of a polyelectrolyte based-fluorene interfacial layer on the performance of a polymer solar cell. <i>Journal of Materials Chemistry A</i> , 2013, 1, 11443.	10.3	10
79	Hyperbranched phthalocyanine enabling black-phase formamidinium perovskite solar cells processing and operating in humidity open air. <i>Journal of Energy Chemistry</i> , 2022, 71, 141-149.	12.9	10
80	NIR Light Driven Terahertz Wave Modulator with a Large Modulation Depth Based on a Silicon-PEDOT:PSS-Perovskite Hybrid System. <i>Advanced Materials Technologies</i> , 2020, 5, 1901090.	5.8	9
81	Hydration Intermediate Phase Regulated In-plane and Out-plane Epitaxy Growth of Oriented Nano-Array Structures on Perovskite Single Crystals. <i>Small</i> , 2022, 18, e2107915.	10.0	6
82	Efficiency Enhancement in Polymer Solar Cells With a Polar Small Molecule Both at Interface and in the Bulk Heterojunction Layer. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1408-1413.	2.5	5
83	Solution-Processed Fullerene-Based Organic Schottky Junction Devices for Large-Open-Circuit-Voltage Organic Solar Cells (Adv. Mater. 4/2013). <i>Advanced Materials</i> , 2013, 25, 571-571.	21.0	4
84	Photodetectors: High-Gain and Low-Driving-Voltage Photodetectors Based on Organolead Triiodide Perovskites (Adv. Mater. 11/2015). <i>Advanced Materials</i> , 2015, 27, 1967-1967.	21.0	3
85	Thermal Dynamic Self-Healing Supramolecular Dopant Towards Efficient and Stable Flexible Perovskite Solar Cells. <i>Angewandte Chemie</i> , 0, , .	2.0	3
86	Ferroelectric Materials: Synthesis and Application of Ferroelectric P(VDF-TrFE) Nanoparticles in Organic Photovoltaic Devices for High Efficiency (Adv. Energy Mater. 12/2013). <i>Advanced Energy Materials</i> , 2013, 3, 1672-1672.	19.5	2
87	Perovskite Monocrystals: Ultrathin Perovskite Monocrystals Boost the Solar Cell Performance (Adv.) <i>Tj ETQq1 1 0.784314 rgBT /Overl</i>	19.5	2
88	Alternating phenylenevinylene copolymers with dithienbenzothiadiazole moieties: Synthesis, photophysical, and photovoltaic properties. <i>Journal of Applied Polymer Science</i> , 2009, 114, 2740-2750.	2.6	1
89	Engineering Crystalline Grain of Hybrid Perovskites for High Efficiency Solar Cells and Beyond. , 2015, , .		1
90	Synthesis, photophysics and photovoltaics of alternating vinylene-copolymer and model compound containing triphenylamine moieties along the backbone. <i>Synthetic Metals</i> , 2009, 159, 1546-1551.	3.9	0