Qingfeng Dong

List of Publications by Citations

84 papers	16,478 citations	39 h-index	92 g-index
92 ext. papers	18,475 ext. citations	14.8 avg, IF	6.84 L-index

#	Paper	IF	Citations
84	Solar cells. Electron-hole diffusion lengths > 175 μm in solution-grown CH3NH3PbI3 single crystals. *Science*, **2015**, 347, 967-70	33.3	3708
83	Solvent annealing of perovskite-induced crystal growth for photovoltaic-device efficiency enhancement. *Advanced Materials*, **2014**, 26, 6503-9	24	1348
82	Giant switchable photovoltaic effect in organometal trihalide perovskite devices. *Nature Materials*, **2015**, 14, 193-8	27	1144
81	Efficient, high yield perovskite photovoltaic devices grown by interdiffusion of solution-processed precursor stacking layers. *Energy and Environmental Science*, **2014**, 7, 2619-2623	35.4	1059
80	Highly narrowband perovskite single-crystal photodetectors enabled by surface-charge recombination. *Nature Photonics*, **2015**, 9, 679-686	33.9	944
79	Grain boundary dominated ion migration in polycrystalline organic–inorganic halide perovskite films. *Energy and Environmental Science*, **2016**, 9, 1752-1759	35.4	701
78	Large fill-factor bilayer iodine perovskite solar cells fabricated by a low-temperature solution-process. *Energy and Environmental Science*, **2014**, 7, 2359-2365	35.4	688
77	A nanocomposite ultraviolet photodetector based on interfacial trap-controlled charge injection. *Nature Nanotechnology*, **2012**, 7, 798-802	28.7	534
76	Scaling behavior of moisture-induced grain degradation in polycrystalline hybrid perovskite thin films. *Energy and Environmental Science*, **2017**, 10, 516-522	35.4	525
75	Scalable fabrication of efficient organolead trihalide perovskite solar cells with doctor-bladed active layers. *Energy and Environmental Science*, **2015**, 8, 1544-1550	35.4	522
74	High-gain and low-driving-voltage photodetectors based on organolead triiodide perovskites. *Advanced Materials*, **2015**, 27, 1912-8	24	491
73	Thin Insulating Tunneling Contacts for Efficient and Water-Resistant Perovskite Solar Cells. *Advanced Materials*, **2016**, 28, 6734-9	24	430
72	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. *Nature Communications*, **2017**, 8, 1890	17.4	326
71	Enhancing stability and efficiency of perovskite solar cells with crosslinkable silane-functionalized and doped fullerene. *Nature Communications*, **2016**, 7, 12806	17.4	293
70	Air-Stable, Efficient Mixed-Cation Perovskite Solar Cells with Cu Electrode by Scalable Fabrication of Active Layer. *Advanced Energy Materials*, **2016**, 6, 1600372	21.8	235
69	Ultrafast ion migration in hybrid perovskite polycrystalline thin films under light and suppression in single crystals. *Physical Chemistry Chemical Physics*, **2016**, 18, 30484-30490	3.6	228
68	Abnormal crystal growth in CH3NH3PbI3−xClx using a multi-cycle solution coating process. *Energy and Environmental Science*, **2015**, 8, 2464-2470	35.4	224

67	Efficient Semitransparent Perovskite Solar Cells for 23.0%-Efficiency Perovskite/Silicon Four-Terminal Tandem Cells. *Advanced Energy Materials*, **2016**, 6, 1601128	21.8	203
66	Composition Engineering in Doctor-Blading of Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700302	21.8	195
65	Charge Carrier Lifetimes Exceeding 15 □s in Methylammonium Lead Iodide Single Crystals. *Journal of Physical Chemistry Letters*, **2016**, 7, 923-8	6.4	191
64	CHNHPbI perovskites: Ferroelasticity revealed. *Science Advances*, **2017**, 3, e1602165	14.3	179
63	Organometal Trihalide Perovskite Single Crystals: A Next Wave of Materials for 25% Efficiency Photovoltaics and Applications Beyond?. *Journal of Physical Chemistry Letters*, **2015**, 6, 3218-3227	6.4	179
62	Quantification of re-absorption and re-emission processes to determine photon recycling efficiency in perovskite single crystals. *Nature Communications*, **2017**, 8, 14417	17.4	154
61	An Ultraviolet-to-NIR Broad Spectral Nanocomposite Photodetector with Gain. *Advanced Optical Materials*, **2014**, 2, 549-554	8.1	142
60	Chloride Incorporation Process in CH□NH□PbI(3-x)Cl(x) Perovskites via Nanoscale Bandgap Maps. *Nano Letters*, **2015**, 15, 8114-21	11.5	138
59	Lateral-Structure Single-Crystal Hybrid Perovskite Solar Cells via Piezoelectric Poling. *Advanced Materials*, **2016**, 28, 2816-21	24	118
58	Solution-processed fullerene-based organic Schottky junction devices for large-open-circuit-voltage organic solar cells. *Advanced Materials*, **2013**, 25, 572-7	24	94
57	Thin-film semiconductor perspective of organometal trihalide perovskite materials for high-efficiency solar cells. *Materials Science and Engineering Reports*, **2016**, 101, 1-38	30.9	91
56	Large electrostrictive response in lead halide perovskites. *Nature Materials*, **2018**, 17, 1020-1026	27	89
55	Design and synthesis of solution processable small molecules towards high photovoltaic performance. *Journal of Materials Chemistry*, **2011**, 21, 2159-2168		79
54	All-spin-coating vacuum-free processed semi-transparent inverted polymer solar cells with PEDOT:PSS anode and PAH-D interfacial layer. *Organic Electronics*, **2010**, 11, 1327-1331	3.5	73
53	Efficient lateral-structure perovskite single crystal solar cells with high operational stability. *Nature Communications*, **2020**, 11, 274	17.4	69
52	Distinct exciton dissociation behavior of organolead trihalide perovskite and excitonic semiconductors studied in the same system. *Small*, **2015**, 11, 2164-9	11	68
51	Unraveling the hidden function of a stabilizer in a precursor in improving hybrid perovskite film morphology for high efficiency solar cells. *Energy and Environmental Science*, **2016**, 9, 867-872	35.4	56
50	Solution synthesis of copper selenide nanocrystals and their electrical transport properties. *CrystEngComm*, **2012**, 14, 2139	3.3	47

49	One-step solution synthesis of bismuth sulfide (Bi2S3) with various hierarchical architectures and their photoresponse properties. *RSC Advances*, **2012**, 2, 234-240	3.7	44
48	Efficiency enhancement of polymer solar cells by incorporating a self-assembled layer of silver nanodisks. *Solar Energy Materials and Solar Cells*, **2011**, 95, 3281-3286	6.4	44
47	Green polymer solar cell based on water-soluble poly [3-(potassium-6-hexanoate) thiophene-2, 5-diyl] and aqueous-dispersible noncovalent functionalized graphene sheets. *Solar Energy Materials and Solar Cells*, **2012**, 97, 28-33	6.4	43
46	Donor Acceptor Molecule as the Acceptor for Polymer-Based Bulk Heterojunction Solar Cells. *Journal of Physical Chemistry C*, **2009**, 113, 7882-7886	3.8	43
45	New amorphous small molecules Synthesis, characterization and their application in bulk heterojunction solar cells. *Solar Energy Materials and Solar Cells*, **2011**, 95, 2272-2280	6.4	39
44	Fast Growth of Thin MAPbI3 Crystal Wafers on Aqueous Solution Surface for Efficient Lateral-Structure Perovskite Solar Cells. *Advanced Functional Materials*, **2019**, 29, 1807707	15.6	38
43	Synthesis and Application of Ferroelectric P(VDF-TrFE) Nanoparticles in Organic Photovoltaic Devices for High Efficiency. *Advanced Energy Materials*, **2013**, 3, 1581-1588	21.8	38
42	Efficient and Stable Red Perovskite Light-Emitting Diodes with Operational Stability >300 h. *Advanced Materials*, **2021**, 33, e2008820	24	38
41	Improving the sensitivity of a near-infrared nanocomposite photodetector by enhancing trap induced hole injection. *Applied Physics Letters*, **2015**, 106, 023301	3.4	37
40	A low band gap donor acceptor copolymer containing fluorene and benzothiadiazole units: synthesis and photovoltaic properties. *New Journal of Chemistry*, **2011**, 35, 385-393	3.6	35
39	Aqueous-solution-processed hybrid solar cells from poly(1,4-naphthalenevinylene) and CdTe nanocrystals. *ACS Applied Materials & Interfaces*, **2011**, 3, 2919-23	9.5	31
38	Vacuum-free laminated top electrode with conductive tapes for scalable manufacturing of efficient perovskite solar cells. *Nano Energy*, **2015**, 16, 47-53	17.1	30
37	A benzo[1,2-b:4,5-b?]dithiophene-based copolymer with deep HOMO level for efficient polymer solar cells. *Solar Energy Materials and Solar Cells*, **2012**, 100, 239-245	6.4	29
36	Synthesis, photophysical and photovoltaic properties of star-shaped molecules with triphenylamine as core and phenylethenylthiophene or dithienylethylene as arms. *Solar Energy Materials and Solar Cells*, **2009**, 93, 1952-1958	6.4	28
35	Synthesis and photovoltaic properties of low-bandgap 4,7-dithien-2-yl-2,1,3-benzothiadiazole-based poly(heteroarylenevinylene)s. *Journal of Polymer Science Part A*, **2011**, 49, 2715-2724	2.5	26
34	Atomistic Surface Passivation of CHNHPbI Perovskite Single Crystals for Highly Sensitive Coplanar-Structure X-Ray Detectors. *Research*, **2020**, 2020, 5958243	7.8	26
33	Modulating the optical and electrical properties of MAPbBr single crystals via voltage regulation engineering and application in memristors. *Light: Science and Applications*, **2020**, 9, 111	16.7	22
32	Low-Temperature Solution-Processed Mg:SnO2 Nanoparticles as an Effective Cathode Interfacial Layer for Inverted Polymer Solar Cell. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 6702-6710	8.3	22

31	Synthesis of Cu2□Se Nanocrystals by Tuning the Reactivity of Se. *Journal of Physical Chemistry C*, **2011**, 115, 9909-9916	3.8	22
30	Ultrathin Perovskite Monocrystals Boost the Solar Cell Performance. *Advanced Energy Materials*, **2020**, 10, 2000453	21.8	20
29	Dynamic Passivation in Perovskite Quantum Dots for Specific Ammonia Detection at Room Temperature. *Small*, **2020**, 16, e1904462	11	19
28	Stable and Highly Flexible Perovskite Solar Cells with Power Conversion Efficiency Approaching 20% by Elastic Grain Boundary Encapsulation. *CCS Chemistry*, **2021**, 3, 2035-2044	7.2	19
27	All-water-solution processed solar cells based on PPV and TiO2 nanocrystals. *Solar Energy Materials and Solar Cells*, **2012**, 104, 75-80	6.4	17
26	Zinc alloyed iron pyrite ternary nanocrystals for band gap broadening. *Journal of Materials Chemistry A*, **2013**, 1, 12060	13	17
25	Elimination of Interfacial-Electrochemical-Reaction-Induced Polarization in Perovskite Single Crystals for Ultrasensitive and Stable X-Ray Detector Arrays. *Advanced Materials*, **2021**, e2103078	24	15
24	Reducing photovoltage loss at the anode contact of methylammonium-free inverted perovskite solar cells by conjugated polyelectrolyte doping. *Journal of Materials Chemistry A*, **2020**, 8, 7309-7316	13	14
23	Hole Extraction Enhancement for Efficient Polymer Solar Cells with Boronic Acid Functionalized Carbon Nanotubes doped Hole Transport Layers. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 5122-5131	8.3	14
22	Surface thermal stability of iron pyrite nanocrystals: Role of capping ligands. *Thin Solid Films*, **2014**, 562, 361-366	2.2	13
21	Solution-processed nanoparticle super-float-gated organic field-effect transistor as un-cooled ultraviolet and infrared photon counter. *Scientific Reports*, **2013**, 3, 2707	4.9	13
20	Reducing Photovoltage Loss in Inverted Perovskite Solar Cells by Quantum Dots Alloying Modification at Cathode Contact. *Solar Rrl*, **2020**, 4, 1900468	7.1	13
19	A two-step method combining electrodepositing and spin-coating for solar cell processing. *Journal of Solid State Electrochemistry*, **2010**, 14, 1051-1056	2.6	11
18	Stable, Efficient Near-Infrared Light-Emitting Diodes Enabled by 2D Phase Modulation. *Journal of Physical Chemistry Letters*, **2019**, 10, 2101-2107	6.4	10
17	An efficient photovoltaic device based on novel D-A-D solution-processable small molecules. *Journal of Materials Science*, **2015**, 50, 937-947	4.3	10
16	Influence of a polyelectrolyte based-fluorene interfacial layer on the performance of a polymer solar cell. *Journal of Materials Chemistry A*, **2013**, 1, 11443	13	10
15	Novel solution processable small molecule containing new electron-withdrawing group and oligothiophene for photovoltaic applications. *Solar Energy Materials and Solar Cells*, **2012**, 98, 343-350	6.4	9
14	New 4,7-dithienebenzothiadiazole derivatives with cyano-vinylene bonds: Synthesis, photophysics and photovoltaics. *Synthetic Metals*, **2009**, 159, 1471-1477	3.6	9

13	Efficiency Enhancement in Polymer Solar Cells With a Polar Small Molecule Both at Interface and in the Bulk Heterojunction Layer. *IEEE Journal of Photovoltaics*, **2015**, 5, 1408-1413	3.7	5
12	NIR Light Driven Terahertz Wave Modulator with a Large Modulation Depth Based on a Silicon-PEDOT:PSS-Perovskite Hybrid System. *Advanced Materials Technologies*, **2020**, 5, 1901090	6.8	5
11	Solution-Processed Fullerene-Based Organic Schottky Junction Devices for Large-Open-Circuit-Voltage Organic Solar Cells (Adv. Mater. 4/2013). *Advanced Materials*, **2013**, 25, 571-571	24	4
10	Photodetectors: High-Gain and Low-Driving-Voltage Photodetectors Based on Organolead Triiodide Perovskites (Adv. Mater. 11/2015). *Advanced Materials*, **2015**, 27, 1967-1967	24	3
9	Multiple Hydrogen Bond-Induced Structural Distortion for Broadband White-Light Emission in Two-Dimensional Perovskites. *CCS Chemistry*,2576-2583	7.2	3
8	Guanidine-Templated Manganese Halides Single Crystals toward Efficient Mechanoluminescence and Photoluminescence by Supramolecular Interactions Modulation. *Advanced Optical Materials*, **2021**, 9, 2100862	8.1	3
7	Thermochromic Cs AgBiBr Single Crystal with Decreased Band Gap through Order-Disorder Transition.. *Small*, **2022**, e2201943	11	3
6	Ferroelectric Materials: Synthesis and Application of Ferroelectric P(VDF-TrFE) Nanoparticles in Organic Photovoltaic Devices for High Efficiency (Adv. Energy Mater. 12/2013). *Advanced Energy Materials*, **2013**, 3, 1672-1672	21.8	2
5	Alternating phenylenevinylene copolymers with dithienbenzothiadiazole moieties: Synthesis, photophysical, and photovoltaic properties. *Journal of Applied Polymer Science*, **2009**, 114, 2740-2750	2.9	1
4	Engineering Crystalline Grain of Hybrid Perovskites for High Efficiency Solar Cells and Beyond **2015**,		1
3	Perovskite Monocrystals: Ultrathin Perovskite Monocrystals Boost the Solar Cell Performance (Adv. Energy Mater. 34/2020). *Advanced Energy Materials*, **2020**, 10, 2070144	21.8	1
2	Hydration Intermediate Phase Regulated In-Plane and Out-Plane Epitaxy Growth of Oriented Nano-Array Structures on Perovskite Single Crystals.. *Small*, **2022**, 18, e2107915	11	1
1	Synthesis, photophysics and photovoltaics of alternating vinylene-copolymer and model compound containing triphenylamine moieties along the backbone. *Synthetic Metals*, **2009**, 159, 1546-1551	3.6	