Yanjun Fang

List of Publications by Year
in descending order

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55 papers	17,315 citations	66343 42 h-index	161849 54 g-index
55 all docs	55 docs citations	55 times ranked	14182 citing authors

#	Article	IF	Citations
1	Selfâ€Powered FA_{0.55}MA_{0.45}PbI₃ Singleâ€Crystal Perovskite Xâ€Ray Detectors with High Sensitivity. Advanced Functional Materials, 2022, 32, 2109149.	14.9	62
2	Tuning the Photon Sensitization Mechanism in Metalâ€Halideâ€Perovskiteâ€Based Nanocomposite Films Toward Highly Efficient and Stable Xâ€Ray Detection. Advanced Optical Materials, 2022, 10, .	7.3	9
3	Enhancing Transition Dipole Moments of Heterocyclic Semiconductors via Rational Nitrogenâ€Substitution for Sensitive Near Infrared Detection. Advanced Materials, 2022, 34, e2201600.	21.0	19
4	Interlayer-Assisted Growth of Si-Based All-Inorganic Perovskite Films via Chemical Vapor Deposition for Sensitive and Stable X-ray Detection. Journal of Physical Chemistry Letters, 2022, 13, 5441-5450.	4.6	9
5	Bulk Defect Suppression of Micrometer-Thick Perovskite Single Crystals Enables Stable Photovoltaics. , 2022, 4, 1332-1340.		17
6	Ligand assisted growth of perovskite single crystals with low defect density. Nature Communications, 2021, 12, 1686.	12.8	110
7	Narrowband Nearâ€Infrared Photodetector Enabled by Dual Functional Internalâ€Filterâ€Induced Selective Charge Collection. Advanced Optical Materials, 2021, 9, 2100288.	7.3	26
8	Understanding the Influence of Cation and Anion Migration on Mixedâ€Composition Perovskite Solar Cells via Transient Ion Drift. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100225.	2.4	8
9	Cesium-lead-bromide perovskites with balanced stoichiometry enabled by sodium-bromide doping for all-vacuum deposited silicon-based light-emitting diodes. Journal of Materials Chemistry C, 2021, 9, 2016-2023.	5.5	14
10	Improved Efficiency for Siliconâ€Based Perovskite Lightâ€Emitting Diodes via Interfacial Hydrophilic Modification. Advanced Materials Interfaces, 2021, 8, 2101448.	3.7	4
11	Elimination of Interfacialâ€Electrochemicalâ€Reactionâ€Induced Polarization in Perovskite Single Crystals for Ultrasensitive and Stable Xâ€Ray Detector Arrays. Advanced Materials, 2021, 33, e2103078.	21.0	69
12	Simple Near-Infrared Electron Acceptors for Efficient Photovoltaics and Sensitive Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 39515-39523.	8.0	43
13	Benign ferroelastic twin boundaries in halide perovskites for charge carrier transport and recombination. Nature Communications, 2020, 11, 2215.	12.8	47
14	NIR Light Driven Terahertz Wave Modulator with a Large Modulation Depth Based on a Siliconâ€PEDOT:PSSâ€Perovskite Hybrid System. Advanced Materials Technologies, 2020, 5, 1901090.	5.8	9
15	Atomistic Surface Passivation of CH ₃ NH ₃ PbI ₃ Perovskite Single Crystals for Highly Sensitive Coplanar-Structure X-Ray Detectors. Research, 2020, 2020, 5958243.	5.7	60
16	Fast Growth of Thin MAPbI₃ Crystal Wafers on Aqueous Solution Surface for Efficient Lateralâ€Structure Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1807707.	14.9	62
17	Perovskite Bifunctional Device with Improved Electroluminescent and Photovoltaic Performance through Interfacial Energyâ€Band Engineering. Advanced Materials, 2019, 31, e1902543.	21.0	62
18	Unveiling the operation mechanism of layered perovskite solar cells. Nature Communications, 2019, 10, 1008.	12.8	216

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19	Molecular doping enabled scalable blading of efficient hole-transport-layer-free perovskite solar cells. Nature Communications, 2018, 9, 1625.	12.8	314
20	Enhanced Thermal Stability in Perovskite Solar Cells by Assembling 2D/3D Stacking Structures. Journal of Physical Chemistry Letters, 2018, 9, 654-658.	4.6	447
21	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. Advanced Materials, 2018, 30, 1705176.	21.0	81
22	An inverted planar solar cell with 13% efficiency and a sensitive visible light detector based on orientation regulated 2D perovskites. Journal of Materials Chemistry A, 2018, 6, 24633-24640.	10.3	38
23	Excess charge-carrier induced instability of hybrid perovskites. Nature Communications, 2018, 9, 4981.	12.8	159
24	Dual Functions of Crystallization Control and Defect Passivation Enabled by Sulfonic Zwitterions for Stable and Efficient Perovskite Solar Cells. Advanced Materials, 2018, 30, e1803428.	21.0	296
25	Quantification of re-absorption and re-emission processes to determine photon recycling efficiency in perovskite single crystals. Nature Communications, 2017, 8, 14417.	12.8	189
26	Monolithic integration of hybrid perovskite single crystals with heterogenous substrate for highly sensitive X-ray imaging. Nature Photonics, 2017, 11, 315-321.	31.4	580
27	Matching Charge Extraction Contact for Wideâ€Bandgap Perovskite Solar Cells. Advanced Materials, 2017, 29, 1700607.	21.0	178
28	Composition Engineering in Doctorâ€Blading of Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700302.	19.5	239
29	Ï€â€Conjugated Lewis Base: Efficient Trapâ€Passivation and Chargeâ€Extraction for Hybrid Perovskite Solar Cells. Advanced Materials, 2017, 29, 1604545.	21.0	543
30	Lowâ€Noise and Largeâ€Linearâ€Dynamicâ€Range Photodetectors Based on Hybridâ€Perovskite Thinâ€Singleâ€Crystals. Advanced Materials, 2017, 29, 1703209.	21.0	281
31	Selfâ€Filtered Narrowband Perovskite Photodetectors with Ultrafast and Tuned Spectral Response. Advanced Optical Materials, 2017, 5, 1700672.	7.3	78
32	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. Nature Communications, 2017, 8, 1890.	12.8	467
33	Stable Graphene-Two-Dimensional Multiphase Perovskite Heterostructure Phototransistors with High Gain. Nano Letters, 2017, 17, 7330-7338.	9.1	88
34	Defect passivation in hybrid perovskite solar cells using quaternary ammonium halide anions andÂcations. Nature Energy, 2017, 2, .	39.5	1,694
35	A Highly Sensitive Narrowband Nanocomposite Photodetector with Gain. Advanced Materials, 2016, 28, 2043-2048.	21.0	128
36	Lateralâ€Structure Singleâ€Crystal Hybrid Perovskite Solar Cells via Piezoelectric Poling. Advanced Materials, 2016, 28, 2816-2821.	21.0	144

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37	Ultrafast ion migration in hybrid perovskite polycrystalline thin films under light and suppression in single crystals. Physical Chemistry Chemical Physics, 2016, 18, 30484-30490.	2.8	322
38	Low Temperature Solutionâ€Processed Sb:SnO₂ Nanocrystals for Efficient Planar Perovskite Solar Cells. ChemSusChem, 2016, 9, 2686-2691.	6.8	172
39	A Selfâ€Powered, Subâ€nanosecondâ€Response Solutionâ€Processed Hybrid Perovskite Photodetector for Timeâ€Resolved Photoluminescenceâ€Lifetime Detection. Advanced Materials, 2016, 28, 10794-10800.	21.0	295
40	Sensitive X-ray detectors made of methylammonium lead tribromide perovskite single crystals. Nature Photonics, 2016, 10, 333-339.	31.4	1,271
41	Grain boundary dominated ion migration in polycrystalline organicâ€“inorganic halide perovskite films. Energy and Environmental Science, 2016, 9, 1752-1759.	30.8	917
42	Charge Carrier Lifetimes Exceeding 15 Î¼s in Methylammonium Lead Iodide Single Crystals. Journal of Physical Chemistry Letters, 2016, 7, 923-928.	4.6	226
43	Trap Engineering of CdTe Nanoparticle for High Gain, Fast Response, and Low Noise P3HT:CdTe Nanocomposite Photodetectors. Advanced Materials, 2015, 27, 4975-4981.	21.0	107
44	Toward Highly Sensitive Polymer Photodetectors by Molecular Engineering. Advanced Materials, 2015, 27, 6496-6503.	21.0	136
45	Electron-hole diffusion lengths > 175 Î¼m in solution-grown CH ₃ NH ₃ PbI ₃ single crystals. Science, 2015, 347, 967-970.	12.6	4,642
46	Improving the sensitivity of a near-infrared nanocomposite photodetector by enhancing trap induced hole injection. Applied Physics Letters, 2015, 106, .	3.3	43
47	Photodetectors: High-Gain and Low-Driving-Voltage Photodetectors Based on Organolead Triiodide Perovskites (Adv. Mater. 11/2015). Advanced Materials, 2015, 27, 1967-1967.	21.0	3
48	Abnormal crystal growth in CH₃NH₃PbI_{3â^'x}Cl_xusing a multi-cycle solution coating process. Energy and Environmental Science, 2015, 8, 2464-2470.	30.8	240
49	Resolving Weak Light of Subâ€picowatt per Square Centimeter by Hybrid Perovskite Photodetectors Enabled by Noise Reduction. Advanced Materials, 2015, 27, 2804-2810.	21.0	481
50	Perovskite Solar Cells: Lowâ€Temperature Fabrication of Efficient Wideâ€Bandgap Organolead Trihalide Perovskite Solar Cells (Adv. Energy Mater. 6/2015). Advanced Energy Materials, 2015, 5, .	19.5	2
51	Revealing the working mechanism of polymer photodetectors with ultra-high external quantum efficiency. Physical Chemistry Chemical Physics, 2015, 17, 30712-30720.	2.8	66
52	Highly narrowband perovskite single-crystal photodetectors enabled by surface-charge recombination. Nature Photonics, 2015, 9, 679-686.	31.4	1,201
53	Lowâ€Temperature Fabrication of Efficient Wideâ€Bandgap Organolead Trihalide Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1401616.	19.5	134
54	An Ultravioletâ€toâ€NIR Broad Spectral Nanocomposite Photodetector with Gain. Advanced Optical Materials, 2014, 2, 549-554.	7.3	183

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55	Large Gain, Low Noise Nanocomposite Ultraviolet Photodetectors with a Linear Dynamic Range of 120 dB. Advanced Optical Materials, 2014, 2, 348-353.	7.3	84