Hong-Hua Fang

List of Publications by Year
in descending order

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Version: 2024-02-01

79 papers	7,892 citations	71102 41 h-index	60623 81 g-index
81 all docs	81 docs citations	81 times ranked	10663 citing authors

#	Article	IF	Citations
1	Sensitive X-ray detectors made of methylammonium lead tribromide perovskite single crystals. Nature Photonics, 2016, 10, 333-339.	31.4	1,271
2	Highly Reproducible Snâ€Based Hybrid Perovskite Solar Cells with 9% Efficiency. Advanced Energy Materials, 2018, 8, 1702019.	19.5	726
3	Phenylalkylamine Passivation of Organolead Halide Perovskites Enabling Highâ€Efficiency and Airâ€Stable Photovoltaic Cells. Advanced Materials, 2016, 28, 9986-9992.	21.0	532
4	Advances and Promises of Layered Halide Hybrid Perovskite Semiconductors. ACS Nano, 2016, 10, 9776-9786.	14.6	351
5	Photophysics of Organicâ€“Inorganic Hybrid Lead Iodide Perovskite Single Crystals. Advanced Functional Materials, 2015, 25, 2378-2385.	14.9	318
6	Ultrahigh sensitivity of methylammonium lead tribromide perovskite single crystals to environmental gases. Science Advances, 2016, 2, e1600534.	10.3	304
7	Confinement Effects in Low-Dimensional Lead Iodide Perovskite Hybrids. Chemistry of Materials, 2016, 28, 4554-4562.	6.7	263
8	Broadly tunable metal halide perovskites for solid-state light-emission applications. Materials Today, 2017, 20, 413-424.	14.2	204
9	Photoexcitation dynamics in solution-processed formamidinium lead iodide perovskite thin films for solar cell applications. Light: Science and Applications, 2016, 5, e16056-e16056.	16.6	194
10	Time-Resolved Fluorescence Study of Aggregation-Induced Emission Enhancement by Restriction of Intramolecular Charge Transfer State. Journal of Physical Chemistry B, 2010, 114, 128-134.	2.6	188
11	Benzylamineâ€Treated Wideâ€Bandgap Perovskite with High Thermalâ€Photostability and Photovoltaic Performance. Advanced Energy Materials, 2017, 7, 1701048.	19.5	188
12	Long-lived hot-carrier light emission and large blue shift in formamidinium tin triiodide perovskites. Nature Communications, 2018, 9, 243.	12.8	188
13	Functional organic single crystals for solid-state laser applications. Laser and Photonics Reviews, 2014, 8, 687-715.	8.7	160
14	High numerical aperture microlens arrays of close packing. Applied Physics Letters, 2010, 97, .	3.3	143
15	Perovskite Singleâ€Crystal Microwireâ€Array Photodetectors with Performance Stability beyond 1 Year. Advanced Materials, 2020, 32, e2001998.	21.0	130
16	Counterion-Mediated Ligand Exchange for PbS Colloidal Quantum Dot Superlattices. ACS Nano, 2015, 9, 11951-11959.	14.6	121
17	Compositionâ€Tuned Wide Bandgap Perovskites: From Grain Engineering to Stability and Performance Improvement. Advanced Functional Materials, 2018, 28, 1803130.	14.9	121
18	The Effect of the Microstructure on Trapâ€Assisted Recombination and Light Soaking Phenomenon in Hybrid Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 8094-8102.	14.9	108

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19	N-type polymers as electron extraction layers in hybrid perovskite solar cells with improved ambient stability. Journal of Materials Chemistry A, 2016, 4, 2419-2426.	10.3	100
20	Unravelling Lightâ€Induced Degradation of Layered Perovskite Crystals and Design of Efficient Encapsulation for Improved Photostability. Advanced Functional Materials, 2018, 28, 1800305.	14.9	95
21	Two-Photon Pumped Amplified Spontaneous Emission from Cyano-Substituted Oligo(p-phenylenevinylene) Crystals with Aggregation-Induced Emission Enhancement. Journal of Physical Chemistry C, 2010, 114, 11958-11961.	3.1	92
22	Origin of the increased open circuit voltage in PbSâ€“CdS coreâ€“shell quantum dot solar cells. Journal of Materials Chemistry A, 2015, 3, 1450-1457.	10.3	91
23	Whisperingâ€gallery mode lasing from patterned molecular singleâ€crystalline microcavity array. Laser and Photonics Reviews, 2013, 7, 281-288.	8.7	85
24	Distributed Feedback Lasers Based on Thiophene/Phenylene Coâ€Oligomer Single Crystals. Advanced Functional Materials, 2012, 22, 33-38.	14.9	81
25	Constructing the Electronic Structure of CH₃NH₃PbI₃ and CH₃NH₃PbBr₃ Perovskite Thin Films from Single-Crystal Band Structure Measurements. Journal of Physical Chemistry Letters, 2019, 10, 601-609.	4.6	78
26	One-Step Preparation of Regular Micropearl Arrays for Two-Direction Controllable Anisotropic Wetting. Langmuir, 2010, 26, 12012-12016.	3.5	73
27	Stable PbS quantum dot ink for efficient solar cells by solution-phase ligand engineering. Journal of Materials Chemistry A, 2019, 7, 15951-15959.	10.3	72
28	Highly Efficient Three Primary Color Organic Singleâ€Crystal Lightâ€Emitting Devices with Balanced Carrier Injection and Transport. Advanced Functional Materials, 2017, 27, 1604659.	14.9	69
29	Bandâ€Edge Exciton Fine Structure and Exciton Recombination Dynamics in Single Crystals of Layered Hybrid Perovskites. Advanced Functional Materials, 2020, 30, 1907979.	14.9	68
30	Exciton Recombination in Formamidinium Lead Triiodide: Nanocrystals versus Thin Films. Small, 2017, 13, 1700673.	10.0	62
31	Stoichiometric control of the density of states in PbS colloidal quantum dot solids. Science Advances, 2017, 3, eaao1558.	10.3	62
32	Photoluminescence Enhancement in Formamidinium Lead Iodide Thin Films. Advanced Functional Materials, 2016, 26, 4653-4659.	14.9	61
33	Two-photon excited highly polarized and directional upconversion emission from slab organic crystals. Optics Letters, 2010, 35, 441.	3.3	53
34	Clarification of the Molecular Doping Mechanism in Organic Singleâ€Crystalline Semiconductors and their Application in Colorâ€Tunable Lightâ€Emitting Devices. Advanced Materials, 2018, 30, e1801078.	21.0	53
35	Aggregation induced enhanced emission of conjugated dendrimers with a large intrinsic two-photon absorption cross-section. Polymer Chemistry, 2014, 5, 479-488.	3.9	52
36	Efficient Perovskite Solar Cells over a Broad Temperature Window: The Role of the Charge Carrier Extraction. Advanced Energy Materials, 2017, 7, 1701305.	19.5	52

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37	A simple strategy to realize biomimetic surfaces with controlled anisotropic wetting. Applied Physics Letters, 2010, 96, .	3.3	49
38	Insights into the origin of aggregation enhanced emission of 9,10-distyrylanthracene derivatives. Materials Chemistry Frontiers, 2017, 1, 1422-1429.	5.9	47
39	Solid state emission enhancement of 9,10-distyrylanthracene derivatives and amplified spontaneous emission from a large single crystal. New Journal of Chemistry, 2010, 34, 1838.	2.8	46
40	Synthesis, characterization, two-photon absorption, and optical limiting properties of triphenylamine-based dendrimers. New Journal of Chemistry, 2009, 33, 2457.	2.8	42
41	Understanding the Impact of Bismuth Heterovalent Doping on the Structural and Photophysical Properties of CH₃NH₃PbBr₃ Halide Perovskite Crystals with Nearâ€IR Photoluminescence. Chemistry - A European Journal, 2019, 25, 5480-5488.	3.3	42
42	Photophysics of Twoâ€Dimensional Perovskitesâ€”Learning from Metal Halide Substitution. Advanced Functional Materials, 2021, 31, 2103778.	14.9	41
43	Two-photon induced amplified spontaneous emission from needlelike triphenylamine-containing derivative crystals with low threshold. Applied Physics Letters, 2009, 94, 201113.	3.3	39
44	Colloidal Quantum Dot Inks for Single-Step-Fabricated Field-Effect Transistors: The Importance of Postdeposition Ligand Removal. ACS Applied Materials & Interfaces, 2018, 10, 5626-5632.	8.0	39
45	Micropatterned 2D Hybrid Perovskite Thin Films with Enhanced Photoluminescence Lifetimes. ACS Applied Materials & Interfaces, 2018, 10, 12878-12885.	8.0	38
46	Mechanism of surface passivation of methylammonium lead tribromide single crystals by benzylamine. Applied Physics Reviews, 2019, 6, 031401.	11.3	34
47	Intrinsic Polarization and Tunable Color of Electroluminescence from Organic Single Crystal-based Light-Emitting Devices. Scientific Reports, 2015, 5, 12445.	3.3	33
48	Fabrication and Characterization of Organic Single Crystalâ€Based Lightâ€Emitting Devices with Improved Contact Between the Metallic Electrodes and Crystal. Advanced Functional Materials, 2014, 24, 7085-7092.	14.9	31
49	Band-Gap-Controllable Photonic Crystals Consisting of Magnetic Nanocrystal Clusters in a Solidified Polymer Matrix. Journal of Physical Chemistry C, 2009, 113, 18542-18545.	3.1	30
50	Distribution of bromine in mixed iodideâ€“bromide organolead perovskites and its impact on photovoltaic performance. Journal of Materials Chemistry A, 2016, 4, 16191-16197.	10.3	29
51	High-Quality Large-Size Organic Crystals Prepared by Improved Physical Vapor Growth Technique and Their Optical Gain Properties. Journal of Physical Chemistry C, 2011, 115, 9171-9175.	3.1	28
52	Reversible Threeâ€Color Fluorescence Switching of an Organic Molecule in the Solid State via â€œPumpâ€“Triggerâ€•Optical Manipulation. Angewandte Chemie - International Edition, 2022, 61, .	13.8	27
53	Polarization dependent two-photon properties in an organic crystal. Applied Physics Letters, 2010, 97, .	3.3	26
54	Flexible lasers based on the microstructured single-crystalline ultrathin films. Journal of Materials Chemistry, 2012, 22, 24139.	6.7	24

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55	Universal Electron Injection Dynamics at Nanointerfaces in Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2012, 22, 2783-2791.	14.9	23
56	Amplified spontaneous emission in the cyano-substituted oligo(p-phenylenevinylene) organic crystals: Effect of excitation wavelength. Applied Physics Letters, 2010, 96, .	3.3	20
57	Preparation and time-resolved fluorescence study of RGB organic crystals. Organic Electronics, 2013, 14, 389-395.	2.6	20
58	Highly Stable On-Chip Embedded Organic Whispering Gallery Mode Lasers. Journal of Lightwave Technology, 2014, 32, 2415-2419.	4.6	20
59	Improved efficiency of NiOx-based p-i-n perovskite solar cells by using PTEG-1 as electron transport layer. APL Materials, 2017, 5, .	5.1	20
60	Scalable fabrication of high-quality crystalline and stable FAPbI₃thin films by combining doctor-blade coating and the cation exchange reaction. Nanoscale, 2019, 11, 5989-5997.	5.6	20
61	Understanding the Passivation Mechanisms and Opto-Electronic Spectral Response in Methylammonium Lead Halide Perovskite Single Crystals. ACS Applied Materials & Interfaces, 2018, 10, 35580-35588.	8.0	19
62	Stable Cesium Formamidinium Lead Halide Perovskites: A Comparison of Photophysics and Phase Purity in Thin Films and Single Crystals. Energy Technology, 2020, 8, 1901041.	3.8	19
63	Temperature-Dependent Optical Properties of PbS/CdS Core/Shell Quantum Dot Thin Films: Probing the Wave Function Delocalization. Journal of Physical Chemistry C, 2015, 119, 17480-17486.	3.1	18
64	Effect of the Device Architecture on the Performance of FA_{0.85}MA_{0.15}PbBr_{0.45}I_{2.55} Planar Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1801667.	3.7	15
65	Temporal dynamics of two-photon-pumped amplified spontaneous emission in slab organic crystals. Optics Letters, 2010, 35, 2561.	3.3	14
66	Direct laser interference ablating nanostructures on organic crystals. Optics Letters, 2012, 37, 686.	3.3	13
67	Distributed feedback lasing from thin organic crystal based on active waveguide grating structures. Organic Electronics, 2012, 13, 1602-1605.	2.6	13
68	Organic Crystals: Fabrication and Characterization of Organic Single Crystalâ€Based Lightâ€Emitting Devices with Improved Contact Between the Metallic Electrodes and Crystal (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	1.9	13
69	Two-Photon Absorption and Spectral-Narrowed Light Source. IEEE Journal of Quantum Electronics, 2010, 46, 1775-1781.	1.9	12
70	Low threshold melt-processed two-photon organic surface emitting upconversion lasers. Organic Electronics, 2013, 14, 762-767.	2.6	9
71	Charge Trap Formation and Passivation in Methylammonium Lead Tribromide. Journal of Physical Chemistry C, 2019, 123, 13812-13817.	3.1	9
72	Influence of morphology on photoluminescence properties of methylammonium lead tribromide films. Journal of Luminescence, 2020, 220, 117033.	3.1	8

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73	Efficient Twoâ€Photon Excited Amplified Spontaneous Emission from Organic Single Crystals. ChemPhysChem, 2010, 11, 1871-1875.	2.1	6
74	Reversible Threeâ€Color Fluorescence Switching of an Organic Molecule in the Solid State via â€œPumpâ€“Triggerâ€•Optical Manipulation. Angewandte Chemie, 2022, 134, .	2.0	6
75	Synthesis of ultra-narrow PbTe nanorods with extremely strong quantum confinement. Journal of Materials Science and Technology, 2019, 35, 703-710.	10.7	5
76	Top down fabrication of organic nanocrystals by femtosecond laser induced transfer method. CrystEngComm, 2012, 14, 4596.	2.6	4
77	Organic Single Crystalline Lasers: Distributed Feedback Lasers Based on Thiophene/Phenylene Co-Oligomer Single Crystals (Adv. Funct. Mater. 1/2012). Advanced Functional Materials, 2012, 22, 32-32.	14.9	1
78	Lowered threshold of polymer distributed feedback laser by hybridizing waveguide and surface-plasmon polariton modes. Optics and Laser Technology, 2013, 45, 246-249.	4.6	1
79	Plasmon-Photon Coupled Modes Lasing in a Silver-Coated Hemisphere. IEEE Photonics Technology Letters, 2016, 28, 351-354.	2.5	1