Hong-Hua Fang

List of Publications by Year
in descending order

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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	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
2	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
3	Photophysics of Twoâ€Dimensional Perovskitesâ€”Learning from Metal Halide Substitution. Advanced Functional Materials, 2021, 31, 2103778.	14.9	41
4	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
5	Influence of morphology on photoluminescence properties of methylammonium lead tribromide films. Journal of Luminescence, 2020, 220, 117033.	3.1	8
6	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
7	Perovskite Singleâ€Crystal Microwireâ€Array Photodetectors with Performance Stability beyond 1 Year. Advanced Materials, 2020, 32, e2001998.	21.0	130
8	Mechanism of surface passivation of methylammonium lead tribromide single crystals by benzylamine. Applied Physics Reviews, 2019, 6, 031401.	11.3	34
9	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
10	Charge Trap Formation and Passivation in Methylammonium Lead Tribromide. Journal of Physical Chemistry C, 2019, 123, 13812-13817.	3.1	9
11	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
12	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
13	Synthesis of ultra-narrow PbTe nanorods with extremely strong quantum confinement. Journal of Materials Science and Technology, 2019, 35, 703-710.	10.7	5
14	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
15	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
16	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
17	Long-lived hot-carrier light emission and large blue shift in formamidinium tin triiodide perovskites. Nature Communications, 2018, 9, 243.	12.8	188
18	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

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19	Micropatterned 2D Hybrid Perovskite Thin Films with Enhanced Photoluminescence Lifetimes. ACS Applied Materials & Interfaces, 2018, 10, 12878-12885.	8.0	38
20	Highly Reproducible Snâ€Based Hybrid Perovskite Solar Cells with 9% Efficiency. Advanced Energy Materials, 2018, 8, 1702019.	19.5	726
21	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
22	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
23	Compositionâ€Tuned Wide Bandgap Perovskites: From Grain Engineering to Stability and Performance Improvement. Advanced Functional Materials, 2018, 28, 1803130.	14.9	121
24	Insights into the origin of aggregation enhanced emission of 9,10-distyrylanthracene derivatives. Materials Chemistry Frontiers, 2017, 1, 1422-1429.	5.9	47
25	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
26	Exciton Recombination in Formamidinium Lead Triiodide: Nanocrystals versus Thin Films. Small, 2017, 13, 1700673.	10.0	62
27	Broadly tunable metal halide perovskites for solid-state light-emission applications. Materials Today, 2017, 20, 413-424.	14.2	204
28	Stoichiometric control of the density of states in PbS colloidal quantum dot solids. Science Advances, 2017, 3, eaao1558.	10.3	62
29	Benzylamineâ€Treated Wideâ€Bandgap Perovskite with High Thermalâ€Photostability and Photovoltaic Performance. Advanced Energy Materials, 2017, 7, 1701048.	19.5	188
30	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
31	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
32	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
33	Phenylalkylamine Passivation of Organolead Halide Perovskites Enabling Highâ€Efficiency and Airâ€Stable Photovoltaic Cells. Advanced Materials, 2016, 28, 9986-9992.	21.0	532
34	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
35	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
36	Ultrahigh sensitivity of methylammonium lead tribromide perovskite single crystals to environmental gases. Science Advances, 2016, 2, e1600534.	10.3	304

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37	Advances and Promises of Layered Halide Hybrid Perovskite Semiconductors. ACS Nano, 2016, 10, 9776-9786.	14.6	351
38	Photoluminescence Enhancement in Formamidinium Lead Iodide Thin Films. Advanced Functional Materials, 2016, 26, 4653-4659.	14.9	61
39	Confinement Effects in Low-Dimensional Lead Iodide Perovskite Hybrids. Chemistry of Materials, 2016, 28, 4554-4562.	6.7	263
40	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
41	Sensitive X-ray detectors made of methylammonium lead tribromide perovskite single crystals. Nature Photonics, 2016, 10, 333-339.	31.4	1,271
42	Plasmon-Photon Coupled Modes Lasing in a Silver-Coated Hemisphere. IEEE Photonics Technology Letters, 2016, 28, 351-354.	2.5	1
43	Intrinsic Polarization and Tunable Color of Electroluminescence from Organic Single Crystal-based Light-Emitting Devices. Scientific Reports, 2015, 5, 12445.	3.3	33
44	Photophysics of Organicâ€“Inorganic Hybrid Lead Iodide Perovskite Single Crystals. Advanced Functional Materials, 2015, 25, 2378-2385.	14.9	318
45	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
46	Counterion-Mediated Ligand Exchange for PbS Colloidal Quantum Dot Superlattices. ACS Nano, 2015, 9, 11951-11959.	14.6	121
47	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
48	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	14.9	1
49	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
50	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
51	Functional organic single crystals for solid-state laser applications. Laser and Photonics Reviews, 2014, 8, 687-715.	8.7	160
52	Highly Stable On-Chip Embedded Organic Whispering Gallery Mode Lasers. Journal of Lightwave Technology, 2014, 32, 2415-2419.	4.6	20
53	Preparation and time-resolved fluorescence study of RGB organic crystals. Organic Electronics, 2013, 14, 389-395.	2.6	20
54	Whisperingâ€gallery mode lasing from patterned molecular singleâ€crystalline microcavity array. Laser and Photonics Reviews, 2013, 7, 281-288.	8.7	85

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55	Low threshold melt-processed two-photon organic surface emitting upconversion lasers. Organic Electronics, 2013, 14, 762-767.	2.6	9
56	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
57	Direct laser interference ablating nanostructures on organic crystals. Optics Letters, 2012, 37, 686.	3.3	13
58	Flexible lasers based on the microstructured single-crystalline ultrathin films. Journal of Materials Chemistry, 2012, 22, 24139.	6.7	24
59	Top down fabrication of organic nanocrystals by femtosecond laser induced transfer method. CrystEngComm, 2012, 14, 4596.	2.6	4
60	Distributed feedback lasing from thin organic crystal based on active waveguide grating structures. Organic Electronics, 2012, 13, 1602-1605.	2.6	13
61	Universal Electron Injection Dynamics at Nanointerfaces in Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2012, 22, 2783-2791.	14.9	23
62	Distributed Feedback Lasers Based on Thiophene/Phenylene Coâ€Oligomer Single Crystals. Advanced Functional Materials, 2012, 22, 33-38.	14.9	81
63	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
64	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
65	Two-Photon Absorption and Spectral-Narrowed Light Source. IEEE Journal of Quantum Electronics, 2010, 46, 1775-1781.	1.9	12
66	Efficient Twoâ€Photon Excited Amplified Spontaneous Emission from Organic Single Crystals. ChemPhysChem, 2010, 11, 1871-1875.	2.1	6
67	High numerical aperture microlens arrays of close packing. Applied Physics Letters, 2010, 97, .	3.3	143
68	Polarization dependent two-photon properties in an organic crystal. Applied Physics Letters, 2010, 97, .	3.3	26
69	A simple strategy to realize biomimetic surfaces with controlled anisotropic wetting. Applied Physics Letters, 2010, 96, .	3.3	49
70	Amplified spontaneous emission in the cyano-substituted oligo(p-phenylenevinylene) organic crystals: Effect of excitation wavelength. Applied Physics Letters, 2010, 96, .	3.3	20
71	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
72	One-Step Preparation of Regular Micropearl Arrays for Two-Direction Controllable Anisotropic Wetting. Langmuir, 2010, 26, 12012-12016.	3.5	73

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73	Two-photon excited highly polarized and directional upconversion emission from slab organic crystals. Optics Letters, 2010, 35, 441.	3.3	53
74	Temporal dynamics of two-photon-pumped amplified spontaneous emission in slab organic crystals. Optics Letters, 2010, 35, 2561.	3.3	14
75	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
76	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
77	Two-photon induced amplified spontaneous emission from needlelike triphenylamine-containing derivative crystals with low threshold. Applied Physics Letters, 2009, 94, 201113.	3.3	39
78	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
79	Synthesis, characterization, two-photon absorption, and optical limiting properties of triphenylamine-based dendrimers. New Journal of Chemistry, 2009, 33, 2457.	2.8	42