Xingyu Gao

List of Publications by Year
in descending order

111 papers	8,455 citations	66234 42 h-index	46693 89 g-index
118 all docs	118 docs citations	118 times ranked	8434 citing authors

#	Article	IF	Citations
1	Chiral cation promoted interfacial charge extraction for efficient tin-based perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 789-796.	7.1	16
2	Selfâ€Polymerization of Monomer and Induced Interactions with Perovskite for Highly Performed and Stable Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, 2105290.	7.8	14
3	Multifunctional potassium thiocyanate interlayer for eco-friendly tin perovskite indoor and outdoor photovoltaics. Chemical Engineering Journal, 2022, 433, 133832.	6.6	39
4	Facet orientation tailoring via 2D-seed- induced growth enables highly efficient and stable perovskite solar cells. Joule, 2022, 6, 240-257.	11.7	128
5	Enhancement of exciton separation in indoor perovskite photovoltaics by employing conjugated organic chromophores. Journal of Power Sources, 2022, 520, 230785.	4.0	10
6	Designing Ionic Liquids as the Solvent for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 22870-22878.	4.0	18
7	Additiveâ€Free, Lowâ€Temperature Crystallization of Stable Î±â€FAPbI₃ Perovskite. Advanced Materials, 2022, 34, e2107850.	11.1	71
8	Insight into the Enhanced Charge Transport in Quasi-2D Perovskite via Fluorination of Ammonium Cations for Photovoltaic Applications. ACS Applied Materials & Interfaces, 2022, 14, 7917-7925.	4.0	9
9	Exploration of the Defect Passivation in Perovskite Materials Using Organic Spacer Cations. Advanced Materials Interfaces, 2022, 9, .	1.9	4
10	Fullâ€Dimensional Grain Boundary Stress Release for Flexible Perovskite Indoor Photovoltaics. Advanced Materials, 2022, 34, e2200320.	11.1	55
11	Revealing the crystal phases of primary particles formed during the coprecipitation of iron oxides. Chemical Communications, 2022, 58, 5749-5752.	2.2	8
12	Surface-induced phase engineering and defect passivation of perovskite nanograins for efficient red light-emitting diodes. Nanoscale, 2021, 13, 340-348.	2.8	22
13	Enhanced efficiency of printable mesoscopic perovskite solar cells using ionic liquid additives. Chemical Communications, 2021, 57, 4027-4030.	2.2	16
14	A stable low-temperature H2-production catalyst by crowding Pt on Î±-MoC. Nature, 2021, 589, 396-401.	13.7	290
15	Stabilizing black-phase formamidinium perovskite formation at room temperature and high humidity. Science, 2021, 371, 1359-1364.	6.0	508
16	High-Light-Tolerance PbI₂ Boosting the Stability and Efficiency of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 24692-24701.	4.0	21
17	Impacts of MAPbBr3 Additive on Crystallization Kinetics of FAPbI3 Perovskite for High Performance Solar Cells. Coatings, 2021, 11, 545.	1.2	5
18	A Study of Interfacial Electronic Structure at the CuPc/CsPbI2Br Interface. Crystals, 2021, 11, 547.	1.0	2

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19	Unraveling the Role of Crystallization Dynamics on Luminescence Characteristics of Perovskite Lightâ€Emitting Diodes. Laser and Photonics Reviews, 2021, 15, 2100023.	4.4	36
20	Interfacial Nucleation Seeding for Electroluminescent Manipulation in Blue Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2021, 31, 2103870.	7.8	72
21	Coffeeâ€Stainâ€Free Perovskite Film for Efficient Printed Lightâ€Emitting Diode. Advanced Optical Materials, 2021, 9, 2100553.	3.6	36
22	Interfacial Engineering of Cu₂O Passivating Contact for Efficient Crystalline Silicon Solar Cells with an Al₂O₃ Passivation Layer. ACS Applied Materials & Interfaces, 2021, 13, 28415-28423.	4.0	25
23	Ternary Twoâ€Step Sequential Deposition Induced Perovskite Orientational Crystallization for Highâ€Performance Photovoltaic Devices. Advanced Energy Materials, 2021, 11, 2101538.	10.2	35
24	Unveiling Crystal Orientation in Quasiâ€2D Perovskite Films by In Situ GIWAXS for Highâ€Performance Photovoltaics. Small, 2021, 17, e2100972.	5.2	23
25	Efficient and stable Ruddlesden-Popper layered tin-based perovskite solar cells enabled by ionic liquid-bulky spacers. Science China Chemistry, 2021, 64, 1577-1585.	4.2	26
26	Ionic Liquid Stabilizing Highâ€Efficiency Tin Halide Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101539.	10.2	117
27	One-Step Synthesis of SnI₂Â·(DMSO)_{<i>x</i>} Adducts for High-Performance Tin Perovskite Solar Cells. Journal of the American Chemical Society, 2021, 143, 10970-10976.	6.6	280
28	Decisive Role of Elevated Mobility in X55 and X60 Hole Transport Layers for High-Performance Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7681-7690.	2.5	2
29	Interfacial â€œAnchoring Effectâ€•Enables Efficient Largeâ€Area Skyâ€Blue Perovskite Lightâ€Emitting Diodes. Advanced Science, 2021, 8, e2102213.	5.6	35
30	Minimizing Optical Energy Losses for Longâ€Lifetime Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2021, 31, 2105813.	7.8	28
31	Hydroxylâ€Rich <scp>d</scp>â€Sorbitol to Address Transport Layer/Perovskite Interfacial Issues toward Highly Efficient and Stable 2D/3D Tinâ€Based Perovskite Solar Cells. Advanced Optical Materials, 2021, 9, 2100755.	3.6	16
32	Unveiling the critical role of ammonium bromide in blue emissive perovskite films. Nanoscale, 2021, 13, 13497-13505.	2.8	7
33	The influence of Sc substitution on the crystal structure and scintillation properties of LuBO₃:Ce³⁺ based on a combinatorial materials chip and high-throughput XRD. Journal of Materials Chemistry C, 2021, 9, 8666-8673.	2.7	3
34	Improved V₂O_X Passivating Contact for <i>p</i>â€Type Crystalline Silicon Solar Cells by Oxygen Vacancy Modulation with a SiO_X Tunnel Layer. Advanced Materials Interfaces, 2021, 8, 2100989.	1.9	16
35	Interfacial Nucleation Seeding for Electroluminescent Manipulation in Blue Perovskite Lightâ€Emitting Diodes (Adv. Funct. Mater. 45/2021). Advanced Functional Materials, 2021, 31, 2170331.	7.8	4
36	Highly oriented perovskites for efficient light-emitting diodes with balanced charge transport. Organic Electronics, 2020, 77, 105529.	1.4	5

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37	Revealing Crystallization Dynamics and the Compositional Control Mechanism of 2D Perovskite Film Growth by In Situ Synchrotron-Based GIXRD. ACS Energy Letters, 2020, 5, 8-16.	8.8	68
38	Efficient and stable Ruddlesdenâ€“Popper perovskite solar cell with tailored interlayer molecular interaction. Nature Photonics, 2020, 14, 154-163.	15.6	443
39	Lead Oxalate-Induced Nucleation Retardation for High-Performance Indoor and Outdoor Perovskite Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 836-843.	4.0	15
40	Redâ€Carbonâ€Quantumâ€Dotâ€Doped SnO₂ Composite with Enhanced Electron Mobility for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906374.	11.1	230
41	Efficient organic solar cells with the active layer fabricated from glovebox to ambient condition. Applied Physics Letters, 2020, 117, 133301.	1.5	11
42	Stabilization of Intrinsic Ions in Perovskite Solar Cells by Employment of a Bipolar Star-Shaped Organic Molecule as a Charge Transport Buffer. ACS Applied Energy Materials, 2020, 3, 10632-10641.	2.5	2
43	Improved Phase Stability and Enhanced Luminescence of Calcite Phase LuBO₃:Ce³⁺ through Ga³⁺ Incorporation. Inorganic Chemistry, 2020, 59, 14513-14525.	1.9	9
44	Interaction of the Cation and Vacancy in Hybrid Perovskites Induced by Light Illumination. ACS Applied Materials & Interfaces, 2020, 12, 42369-42377.	4.0	9
45	Hierarchically Manipulated Charge Recombination for Mitigating Energy Loss in CsPbI2Br Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 41596-41604.	4.0	11
46	Thermal-induced interface degradation in perovskite light-emitting diodes. Journal of Materials Chemistry C, 2020, 8, 15079-15085.	2.7	30
47	Tailoring Component Interaction for Airâ€Processed Efficient and Stable Allâ€Inorganic Perovskite Photovoltaic. Angewandte Chemie, 2020, 132, 13456-13463.	1.6	15
48	Direct experimental evidence of physical origin of electronic phase separation in manganites. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7090-7094.	3.3	35
49	Ultrahigh Density of Gas Molecules Confined in Surface Nanobubbles in Ambient Water. Journal of the American Chemical Society, 2020, 142, 5583-5593.	6.6	88
50	Tailoring Component Interaction for Airâ€Processed Efficient and Stable Allâ€Inorganic Perovskite Photovoltaic. Angewandte Chemie - International Edition, 2020, 59, 13354-13361.	7.2	158
51	In situ observation of Î´ phase suppression by lattice strain in all-inorganic perovskite solar cells. Nano Energy, 2020, 73, 104803.	8.2	32
52	A disorder-free conformation boosts phonon and charge transfer in an electron-deficient-core-based non-fullerene acceptor. Journal of Materials Chemistry A, 2020, 8, 8566-8574.	5.2	37
53	Origin of High Efficiency and Long-Term Stability in Ionic Liquid Perovskite Photovoltaic. Research, 2020, 2020, 2616345.	2.8	59
54	Thermodynamically stabilized Î²-CsPbI ₃ â€“based perovskite solar cells with efficiencies >18%. Science, 2019, 365, 591-595.	6.0	963

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55	Crystalline Liquid-like Behavior: Surface-Induced Secondary Grain Growth of Photovoltaic Perovskite Thin Film. Journal of the American Chemical Society, 2019, 141, 13948-13953.	6.6	163
56	Furrowed hole-transport layer using argon plasma in an inverted perovskite solar cell. New Journal of Chemistry, 2019, 43, 14625-14633.	1.4	3
57	Unexpected Outstanding Room Temperature Spin Transport Verified in Organicâ€“Inorganic Hybrid Perovskite Film. Journal of Physical Chemistry Letters, 2019, 10, 4422-4428.	2.1	20
58	An Asymmetric Molecular Design Strategy for Organic Field-Effect Transistors with High Consistency of Performance. ACS Applied Electronic Materials, 2019, 1, 1233-1242.	2.0	1
59	Induced charge transfer bridge by non-fullerene surface treatment for high-performance perovskite solar cells. Applied Physics Letters, 2019, 115, .	1.5	4
60	In Situ Studies of 30% Li-Doped Bi₂₅FeO₄₀ Conversion Type Lithium Battery Electrodes. ACS Omega, 2019, 4, 2344-2352.	1.6	4
61	2D Intermediate Suppression for Efficient Ruddlesdenâ€“Popper (RP) Phase Lead-Free Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 1513-1520.	8.8	176
62	Thickness-driven first-order phase transitions in manganite ultrathin films. Physical Review B, 2019, 99, .	1.1	12
63	Oriented and Uniform Distribution of Dionâ€“Jacobson Phase Perovskites Controlled by Quantum Well Barrier Thickness. Solar Rrl, 2019, 3, 1900090.	3.1	102
64	Reduced-Dimensional Perovskite Enabled by Organic Diamine for Efficient Photovoltaics. Journal of Physical Chemistry Letters, 2019, 10, 2349-2356.	2.1	104
65	Passivating Crystal Boundaries with Potassiumâ€Rich Phase in Organic Halide Perovskite. Solar Rrl, 2019, 3, 1900053.	3.1	64
66	Structurally Reconstructed CsPbI₂Br Perovskite for Highly Stable and Squareâ€Centimeter Allâ€Inorganic Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803572.	10.2	192
67	Alternative Type Two-Dimensionalâ€“Three-Dimensional Lead Halide Perovskite with Inorganic Sodium Ions as a Spacer for High-Performance Light-Emitting Diodes. ACS Nano, 2019, 13, 1645-1654.	7.3	43
68	Thickness effects on the epitaxial strain states and phase transformations in (001)-VO2/TiO2 thin films. Journal of Applied Physics, 2019, 125, .	1.1	24
69	A Universal Strategy to Utilize Polymeric Semiconductors for Perovskite Solar Cells with Enhanced Efficiency and Longevity. Advanced Functional Materials, 2018, 28, 1706377.	7.8	134
70	Epitaxial Growth of Highly Oriented Metallic MoO₂@MoS₂ Nanorods on C-sapphire. Journal of Physical Chemistry C, 2018, 122, 1860-1866.	1.5	33
71	Graphene oxide as an additive to improve perovskite film crystallization and morphology forÂhigh-efficiency solar cells. RSC Advances, 2018, 8, 987-993.	1.7	39
72	Pbâ€“Snâ€“Cu Ternary Organometallic Halide Perovskite Solar Cells. Advanced Materials, 2018, 30, e1800258.	11.1	106

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73	Enormously improved CH3NH3PbI3 film surface for environmentally stable planar perovskite solar cells with PCE exceeding 19.9%. Nano Energy, 2018, 48, 10-19.	8.2	61
74	Electric-field assisted perovskite crystallization for high-performance solar cells. Journal of Materials Chemistry A, 2018, 6, 1161-1170.	5.2	37
75	Graphdiyne-modified cross-linkable fullerene as an efficient electron-transporting layer in organometal halide perovskite solar cells. Nano Energy, 2018, 43, 47-54.	8.2	126
76	Nanoplatelet modulation in 2D/3D perovskite targeting efficient light-emitting diodes. Nanoscale, 2018, 10, 19322-19329.	2.8	20
77	Solution-processed perovskite light emitting diodes with efficiency exceeding 15% through additive-controlled nanostructure tailoring. Nature Communications, 2018, 9, 3892.	5.8	379
78	Chemical interaction dictated energy level alignment at the N,Nâ€²-dipentyl-3,4,9,10-perylenedicarboximide/CH3NH3PbI3 interface. Applied Physics Letters, 2018, 113, .	1.5	11
79	Interface Modification by Ionic Liquid: A Promising Candidate for Indoor Light Harvesting and Stability Improvement of Planar Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1801509.	10.2	184
80	Manipulation of facet orientation in hybrid perovskite polycrystalline films by cation cascade. Nature Communications, 2018, 9, 2793.	5.8	189
81	Efficient Perovskite Lightâ€Emitting Diodes via Tuning Nanoplatelet Distribution and Crystallinity Orientation. Advanced Materials Interfaces, 2018, 5, 1801030.	1.9	26
82	Boosting Perovskite Light-Emitting Diode Performance via Tailoring Interfacial Contact. ACS Applied Materials & Interfaces, 2018, 10, 24320-24326.	4.0	96
83	The Evidence of Giant Surface Flexoelectric Field in (111) Oriented BiFeO₃ Thin Film. ACS Applied Materials & Interfaces, 2017, 9, 5600-5606.	4.0	9
84	Origin of Magnetism in Hydrothermally Aged 2-Line Ferrihydrite Suspensions. Environmental Science & Technology, 2017, 51, 2643-2651.	4.6	16
85	Interfacial electronic structures revealed at the rubrene/CH₃NH₃PbI₃ interface. Physical Chemistry Chemical Physics, 2017, 19, 6546-6553.	1.3	50
86	Highâ€Performance Organic Solar Cells Based on a Nonâ€Fullerene Acceptor with a Spiro Core. Chemistry - an Asian Journal, 2017, 12, 721-725.	1.7	33
87	On-surface manipulation of atom substitution between cobalt phthalocyanine and the Cu(111) substrate. RSC Advances, 2017, 7, 13827-13835.	1.7	40
88	Annealing Induced Re-crystallization in CH3NH3PbI3â^’xClx for High Performance Perovskite Solar Cells. Scientific Reports, 2017, 7, 46724.	1.6	53
89	Enhanced Crystalline Phase Purity of CH₃NH₃PbI_{3â€“<i>x</i>}Cl<i>_x</i> Film for High-Efficiency Hysteresis-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 23141-23151.	4.0	41
90	Small Moleculeâ€“Polymer Composite Hole-Transporting Layer for Highly Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 13240-13246.	4.0	62

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91	Passivated perovskite crystallization and stability in organicâ€“inorganic halide solar cells by doping a donor polymer. Journal of Materials Chemistry A, 2017, 5, 2572-2579.	5.2	115
92	Side chain engineering of naphthalene diimideâ€“bithiopheneâ€based polymer acceptors in allâ€polymer solar cells. Journal of Polymer Science Part A, 2017, 55, 3679-3689.	2.5	10
93	High Efficiency Pbâ€“In Binary Metal Perovskite Solar Cells. Advanced Materials, 2016, 28, 6695-6703.	11.1	211
94	Suppression of Structural Phase Transition in VO2 by Epitaxial Strain in Vicinity of Metal-insulator Transition. Scientific Reports, 2016, 6, 23119.	1.6	102
95	High-Performance Perovskite Solar Cells Engineered by an Ammonia Modified Graphene Oxide Interfacial Layer. ACS Applied Materials & Interfaces, 2016, 8, 14503-14512.	4.0	120
96	Copper Salts Doped Spiroâ€OMeTAD for Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1601156.	10.2	205
97	Perovskite Solar Cells: High Efficiency Pbâ€“In Binary Metal Perovskite Solar Cells (Adv. Mater. 31/2016). Advanced Materials, 2016, 28, 6767-6767.	11.1	5
98	Enhanced crystallization and stability of perovskites by a cross-linkable fullerene for high-performance solar cells. Journal of Materials Chemistry A, 2016, 4, 15088-15094.	5.2	70
99	Iodomethane-Mediated Organometal Halide Perovskite with Record Photoluminescence Lifetime. ACS Applied Materials & Interfaces, 2016, 8, 23181-23189.	4.0	35
100	Approximately 800-nm-Thick Pinhole-Free Perovskite Films via Facile Solvent Retarding Process for Efficient Planar Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 34446-34454.	4.0	36
101	Colossal positive magnetoresistance in surface-passivated oxygen-deficient strontium titanite. Scientific Reports, 2015, 5, 10255.	1.6	25
102	Intergranular Stress Induced Phase Transition in CaZrO₃ Modified KNNâ€Based Leadâ€Free Piezoelectrics. Journal of the American Ceramic Society, 2015, 98, 1372-1376.	1.9	36
103	Status of the crystallography beamlines at SSRF. European Physical Journal Plus, 2015, 130, 1.	1.2	4
104	Transfer printing of magnetic structures with enhanced performance using a new type of water-soluble sacrificial layer. RSC Advances, 2015, 5, 56959-56966.	1.7	3
105	Structure, Optical Absorption, and Performance of Organic Solar Cells Improved by Gold Nanoparticles in Buffer Layers. ACS Applied Materials & Interfaces, 2015, 7, 24430-24437.	4.0	24
106	Frontispiece: Irreversible Denaturation of Proteins through Aluminumâ€Induced Formation of Backbone Ring Structures. Angewandte Chemie - International Edition, 2014, 53, .	7.2	0
107	Efficient planar heterojunction perovskite solar cells employing graphene oxide as hole conductor. Nanoscale, 2014, 6, 10505-10510.	2.8	352
108	Electric field induced monoclinic phase in (Na0.52K0.48)(Nb1âˆ’ySby)O3 ceramics close to the rhombohedral-orthorhombic polymorphic phase boundary. Applied Physics Letters, 2013, 103, .	1.5	22

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109	Switching of morphotropic phase boundary and large strain response in lead-free ternary (Bi0.5Na0.5)TiO3â€“(K0.5Bi0.5)TiO3â€“(K0.5Na0.5)NbO3 system. Journal of Applied Physics, 2013, 113, .	1.1	143
110	Large Strain Response in 0.99(<scp><scp>Bi</scp></scp>_{0.5}<scp><scp>Na</scp></scp>_{0.4}<scp><scp>K</scp></scp><sub>0.1</sub Leadâ€Free Ceramics Induced by the Change of <scp><scp>K</scp></scp>/<scp><scp>Na</scp></scp> Ratio in (<scp><scp>K</scp></scp>_{<i>x</i>}<scp><scp>Na</scp></scp>_{1â^’<i>x</i>})<scp><sc. Journal of the American Ceramic Society, 2013, 96, 3133-3140.	1.9	49
111	Significant enhancement of scintillation performance by inducing oxygen vacancies in alkali metal ion (A⁺ = Li⁺, Na⁺, K⁺)-incorporated (Lu,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	1.6	1