Wei-Qiang Liao

List of Publications by Year
in descending order

108	11,759	41344 49	27406 106
papers	citations	h-index	g-index

108	108	108	8099
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An organic-inorganic perovskite ferroelectric with large piezoelectric response. Science, 2017, 357, 306-309.	12.6	744
2	Leadâ€Free Inverted Planar Formamidinium Tin Triiodide Perovskite Solar Cells Achieving Power Conversion Efficiencies up to 6.22%. Advanced Materials, 2016, 28, 9333-9340.	21.0	636
3	Low-bandgap mixed tinâ€“lead iodide perovskite absorbers with long carrier lifetimes for all-perovskite tandem solar cells. Nature Energy, 2017, 2, .	39.5	634
4	Metal-free three-dimensional perovskite ferroelectrics. Science, 2018, 361, 151-155.	12.6	570
5	A lead-halide perovskite molecular ferroelectric semiconductor. Nature Communications, 2015, 6, 7338.	12.8	538
6	Symmetry breaking in molecular ferroelectrics. Chemical Society Reviews, 2016, 45, 3811-3827.	38.1	499
7	Employing Lead Thiocyanate Additive to Reduce the Hysteresis and Boost the Fill Factor of Planar Perovskite Solar Cells. Advanced Materials, 2016, 28, 5214-5221.	21.0	487
8	A molecular perovskite solid solution with piezoelectricity stronger than lead zirconate titanate. Science, 2019, 363, 1206-1210.	12.6	401
9	Fabrication of Efficient Low-Bandgap Perovskite Solar Cells by Combining Formamidinium Tin Iodide with Methylammonium Lead Iodide. Journal of the American Chemical Society, 2016, 138, 12360-12363.	13.7	362
10	Highly Efficient Red-Light Emission in An Organicâ€“Inorganic Hybrid Ferroelectric: (Pyrrolidinium)MnCl₃. Journal of the American Chemical Society, 2015, 137, 4928-4931.	13.7	308
11	Bandgap Engineering of Leadâ€Halide Perovskiteâ€Type Ferroelectrics. Advanced Materials, 2016, 28, 2579-2586.	21.0	298
12	The First 2D Homochiral Lead Iodide Perovskite Ferroelectrics: [Râ€•and Sâ€1â€(4â€Chlorophenyl)ethylammonium]₂PbI₄. Advanced Materials, 2019, 31, e1808088.	21.0	268
13	The First Organicâ€“Inorganic Hybrid Luminescent Multiferroic: (Pyrrolidinium)MnBr₃. Advanced Materials, 2015, 27, 3942-3946.	21.0	263
14	High-Temperature Ferroelectricity and Photoluminescence in a Hybrid Organicâ€“Inorganic Compound: (3-Pyrrolinium)MnCl₃. Journal of the American Chemical Society, 2015, 137, 13148-13154.	13.7	246
15	Low-temperature plasma-enhanced atomic layer deposition of tin oxide electron selective layers for highly efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12080-12087.	10.3	210
16	Understanding and Eliminating Hysteresis for Highly Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700414.	19.5	190
17	Synergistic Effects of Lead Thiocyanate Additive and Solvent Annealing on the Performance of Wide-Bandgap Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1177-1182.	17.4	190
18	Precise Molecular Design of High-T_c 3D Organicâ€“Inorganic Perovskite Ferroelectric: [MeHdabco]RbI₃ (MeHdabco =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td (N-Methyl-1,4-diazoniabic 10897-10902.	13.7	190

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19	Atomistic Mechanism of Broadband Emission in Metal Halide Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 501-506.	4.6	190
20	Improving the Performance of Formamidinium and Cesium Lead Triiodide Perovskite Solar Cells using Lead Thiocyanate Additives. ChemSusChem, 2016, 9, 3288-3297.	6.8	178
21	A Room-Temperature Hybrid Lead Iodide Perovskite Ferroelectric. Journal of the American Chemical Society, 2018, 140, 12296-12302.	13.7	168
22	Compositional and morphological engineering of mixed cation perovskite films for highly efficient planar and flexible solar cells with reduced hysteresis. Nano Energy, 2017, 35, 223-232.	16.0	162
23	Large Piezoelectric Effect in a Lead-Free Molecular Ferroelectric Thin Film. Journal of the American Chemical Society, 2017, 139, 18071-18077.	13.7	160
24	Multiaxial Molecular Ferroelectric Thin Films Bring Light to Practical Applications. Journal of the American Chemical Society, 2018, 140, 8051-8059.	13.7	160
25	Fluorine Substitution Induced High T_c of Enantiomeric Perovskite Ferroelectrics: (R)-(S)-3-(Fluoropyrrolidinium)MnCl₃. Journal of the American Chemical Society, 2019, 141, 4474-4479.	13.7	160
26	Two-Dimensional Organicâ€“Inorganic Perovskite Ferroelectric Semiconductors with Fluorinated Aromatic Spacers. Journal of the American Chemical Society, 2019, 141, 18334-18340.	13.7	157
27	Competitive Halogen Bond in the Molecular Ferroelectric with Large Piezoelectric Response. Journal of the American Chemical Society, 2018, 140, 3975-3980.	13.7	151
28	Organic enantiomeric high- T _c ferroelectrics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5878-5885.	7.1	137
29	Photovoltaic Properties of Two-Dimensional (CH₃NH₃)₂Pb(SCN)₂I₂ Perovskite: A Combined Experimental and Density Functional Theory Study. Journal of Physical Chemistry Letters, 2016, 7, 1213-1218.	4.6	135
30	H/Fâ€Substitutionâ€Induced Homochirality for Designing Highâ€T_c Molecular Perovskite Ferroelectrics. Advanced Materials, 2019, 31, e1902163.	21.0	117
31	Thermally evaporated methylammonium tin triiodide thin films for lead-free perovskite solar cell fabrication. RSC Advances, 2016, 6, 90248-90254.	3.6	114
32	A Chiral Thermochromic Ferroelastic with Seven Physical Channel Switches. Angewandte Chemie - International Edition, 2020, 59, 9574-9578.	13.8	106
33	Unprecedented Ferroelectricâ€“Antiferroelectricâ€“Paraelectric Phase Transitions Discovered in an Organicâ€“Inorganic Hybrid Perovskite. Journal of the American Chemical Society, 2017, 139, 8752-8757.	13.7	105
34	A Three-Dimensional Lead Halide Perovskite-Related Ferroelectric. Journal of the American Chemical Society, 2020, 142, 4604-4608.	13.7	97
35	Temperature-Triggered Reversible Dielectric and Nonlinear Optical Switch Based on the One-Dimensional Organicâ€“Inorganic Hybrid Phase Transition Compound [C₆H₁₁NH₃]₂CdCl₄. Inorganic Chemistry, 2014, 53, 11146-11151.	4.0	85
36	The Narrowest Band Gap Ever Observed in Molecular Ferroelectrics: Hexaneâ€1,6â€diammonium Pentaiodobismuth(III). Angewandte Chemie - International Edition, 2018, 57, 526-530.	13.8	85

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37	Dielectric and photoluminescence properties of a layered perovskite-type organicâ€“inorganic hybrid phase transition compound: NH₃(CH₂)₅NH₃MnCl₄. Journal of Materials Chemistry C, 2016, 4, 1881-1885.	5.5	84
38	Discovery of an Antiperovskite Ferroelectric in [(CH₃)₃NH]₃(MnBr₃)(MnBr₄). Journal of the American Chemical Society, 2018, 140, 8110-8113.	13.7	79
39	Directional Intermolecular Interactions for Precise Molecular Design of a High-T_c Multiaxial Molecular Ferroelectric. Journal of the American Chemical Society, 2019, 141, 1781-1787.	13.7	74
40	Precise Molecular Design Toward Organicâ€“Inorganic Zinc Chloride ABX₃ Ferroelectrics. Journal of the American Chemical Society, 2020, 142, 6236-6243.	13.7	74
41	A Molecular Polycrystalline Ferroelectric with Recordâ€High Phase Transition Temperature. Advanced Materials, 2017, 29, 1700831.	21.0	72
42	The Narrowest Band Gap Ever Observed in Molecular Ferroelectrics: Hexaneâ€1,6â€diammonium Pentaiodobismuth(III). Angewandte Chemie, 2018, 130, 535-539.	2.0	72
43	Molecular Ferroelectricsâ€Driven Highâ€Performance Perovskite Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 19974-19982.	13.8	71
44	PFM (piezoresponse force microscopy)-aided design for molecular ferroelectrics. Chemical Society Reviews, 2021, 50, 8248-8278.	38.1	63
45	Phase transitions and dielectric properties of a hexagonal ABX₃perovskite-type organicâ€“inorganic hybrid compound: [C₃H₄NS][CdBr₃]. Dalton Transactions, 2015, 44, 10614-10620.	3.3	60
46	A symmetry breaking phase transition-triggered high-temperature solid-state quadratic nonlinear optical switch coupled with a switchable dielectric constant in an organicâ€“inorganic hybrid compound. Chemical Communications, 2016, 52, 11135-11138.	4.1	57
47	A Molecular Thermochromic Ferroelectric. Angewandte Chemie - International Edition, 2020, 59, 3495-3499.	13.8	57
48	Sequential structural transitions with distinct dielectric responses in a layered perovskite organicâ€“inorganic hybrid material: [C₄H₉N]₂[PbBr₄]. Dalton Transactions, 2015, 44, 20406-20412.	3.3	56
49	A semiconducting molecular ferroelectric with a bandgap much lower than that of BiFeO3. NPG Asia Materials, 2017, 9, e342-e342.	7.9	54
50	Multichannel Control of Multiferroicity in Single-Component Homochiral Organic Crystals. Journal of the American Chemical Society, 2021, 143, 21685-21693.	13.7	52
51	Structural Phase Transitions of a Layered Organicâ€“Inorganic Hybrid Compound: Tetra(cyclopentylammonium) Decachlorotricadmate(II), [C₅H₉NH₃]₄Cd₃Cl₁₀. Inorganic Chemistry, 2014, 53, 8913-8918.	4.0	50
52	Structureâ€Triggered High Quantum Yield Luminescence and Switchable Dielectric Properties in Manganese(II) Based Hybrid Compounds. Chemistry - an Asian Journal, 2016, 11, 981-985.	3.3	49
53	An Above-Room-Temperature Molecular Ferroelectric: [Cyclopentylammonium]₂CdBr₄. Inorganic Chemistry, 2020, 59, 829-836.	4.0	48
54	H/F substitution for advanced molecular ferroelectrics. Trends in Chemistry, 2021, 3, 1088-1099.	8.5	48

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55	Notable Broad Dielectric Relaxation and Highly Efficient Red Photoluminescence in a Perovskite-Type Compound: (N-Methylpyrrolidinium)MnCl₃. Inorganic Chemistry, 2017, 56, 12193-12198.	4.0	45
56	Homochiral Nickel Nitrite ABX₃ (X = NO₂^{â€“}) Perovskite Ferroelectrics. Journal of the American Chemical Society, 2020, 142, 6946-6950.	13.7	45
57	A temperature-triggered triplex bistable switch in a hybrid multifunctional material: [(CH₂)₄N(CH₂)₄]₂[MnBr₄]. Dalton Transactions, 2018, 47, 16995-17003.	3.3	43
58	High-Temperature Dielectric Switching and Photoluminescence in a Corrugated Lead Bromide Layer Hybrid Perovskite Semiconductor. Inorganic Chemistry, 2019, 58, 10357-10363.	4.0	43
59	Unusual two-step sequential reversible phase transitions with coexisting switchable nonlinear optical and dielectric behaviors in [(CH₃)₃NCH₂Cl]₂[ZnCl₄]. Journal of Materials Chemistry C, 2017, 5, 11873-11878.	5.5	40
60	Dielectric and ferroelectric sensing based on molecular recognition in Cu(1,10-phenlothroline)2SeO4Â·(diol) systems. Nature Communications, 2017, 8, 14551.	12.8	36
61	Homochiral one-dimensional ABX₃ lead halide perovskites with high-T_c quadratic nonlinear optical and dielectric switchings. Materials Chemistry Frontiers, 2021, 5, 4756-4763.	5.9	36
62	Reversible Phase Transition of 1,4-Diazoniabicyclo[2.2.2]octane-1-acetate-4-acetic Acid Chloride Trihydrate. Crystal Growth and Design, 2013, 13, 4025-4030.	3.0	35
63	Above room-temperature dielectric and nonlinear optical switching materials based on [(CH3)3S]2[MBr4] (M = Cd, Mn and Zn). Dalton Transactions, 2019, 48, 11292-11297.	3.3	34
64	Highest-T_c organic enantiomeric ferroelectrics obtained by F/H substitution. Chemical Communications, 2020, 56, 7033-7036.	4.1	33
65	Unprecedented Ferroelectricity and Ferromagnetism in a Cr²⁺â€Based Twoâ€Dimensional Hybrid Perovskite. Angewandte Chemie - International Edition, 2022, 61, .	13.8	32
66	Temperature-Triggered Dielectric-Optical Duple Switch Based on an Organicâ€“Inorganic Hybrid Phase Transition Crystal: [C₅N₂H₁₆]₂SbBr₅. Inorganic Chemistry, 2016, 55, 7661-7666.	4.0	31
67	Switchable Dielectric Phase Transition with Drastic Symmetry Breaking in a Sn(IV)-Based Perovskite-Type Halide Semiconductor. Journal of Physical Chemistry C, 2019, 123, 21161-21166.	3.1	31
68	Organic Ferroelectric Vortexâ€“Antivortex Domain Structure. Journal of the American Chemical Society, 2020, 142, 21932-21937.	13.7	31
69	Optically Induced Ferroelectric Polarization Switching in a Molecular Ferroelectric with Reversible Photoisomerization. Advanced Science, 2021, 8, e2102614.	11.2	31
70	Structural characterization, phase transition and switchable dielectric behaviors in a new zigzag chain organicâ€“inorganic hybrid compound: [C₃H₇NH₃]₂SbI₅. Dalton Transactions, 2016, 45, 5229-5233.	3.3	30
71	High-Temperature Ferroelastic Phase Transition in an Organicâ€“Inorganic Hybrid: [(CH₃)₃NCH₂Br]₂â€“ZnBr₄. Journal of Physical Chemistry C, 2018, 122, 23111-23116.	3.1	30
72	High-temperature reversible phase transitions and exceptional dielectric anomalies in cobalt(<scp>ii</scp>) based ionic crystals: [Me₃NCH₂X]₂[CoX₄] (X = Cl and Br). Dalton Transactions, 2018, 47, 6218-6224.	3.3	28

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73	Design and Prominent Dielectric Properties of a Layered Phase-Transition Crystal: (Cyclohexylmethylammonium)₂CdCl₄. Crystal Growth and Design, 2016, 16, 3912-3916.	3.0	24
74	Experimental Evidence for a Triboluminescent Antiperovskite Ferroelectric: Tris(trimethylammonium) catenaâ€Triâ€μâ€chloroâ€manganate(II) Tetrachloromanganate(II). Angewandte Chemie - International Edition, 2018, 57, 11939-11942.	13.8	24
75	[C₆N₂H₁₈][SbI₅]: A Lead-free Hybrid Halide Semiconductor with Exceptional Dielectric Relaxation. Inorganic Chemistry, 2019, 58, 4337-4343.	4.0	24
76	Highly Efficient 1D/3D Ferroelectric Perovskite Solar Cell. Advanced Functional Materials, 2021, 31, 2100205.	14.9	24
77	Structural phase transitions coupled with prominent dielectric anomalies and dielectric relaxation in a one-dimensional organicâ€“inorganic hybrid compound [C₃H₄NS][CdCl₃]. Journal of Materials Chemistry C, 2015, 3, 8535-8541.	5.5	22
78	Tunable Dielectric Responses Triggered by Dimensionality Modification in Organicâ€“Inorganic Hybrid Phase Transition Compounds (C₅H₆N)Cd_nCl_{2n+1} (n = 1 and 2). Inorganic Chemistry, 2017, 56, 3506-3511.	4.0	22
79	Phaseâ€Transition and Photoluminescence Properties of a Hybrid Layered Perovskite: Bis[(cyclohexylmethyl)ammonium] Tetrabromidolead(II). European Journal of Inorganic Chemistry, 2017, 2017, 938-942.	2.0	21
80	Symmetry Breaking Phase Transition, Second-Order Nonlinear Optical and Dielectric Properties of a One-Dimensional Organicâ€“Inorganic Hybrid Zigzag Chain Compound [NH₃(CH₂)₅NH₃]SbBr₅. Crystal Growth and Design, 2016, 16, 6105-6110.	3.0	19
81	High-temperature sequential structural transitions with distinct switchable dielectric behaviors in two organic ionic plastic crystals: [C₄H₁₁NBr] [ClO₄] and [C₄H₁₁NBr] [BF₄]. CrystEngComm, 2018, 20, 454-459.	2.6	19
82	Tracking the maximum power point of hysteretic perovskite solar cells using a predictive algorithm. Journal of Materials Chemistry C, 2017, 5, 10152-10157.	5.5	18
83	A Threeâ€Dimensional M₃ABâ€Type Hybrid Organicâ€“Inorganic Antiperovskite Ferroelectric: [C₃H₇FN]₃[SnCl₆]Cl. Chemistry - A European Journal, 2019, 25, 16625-16629.	3.3	18
84	A Semiconducting Organicâ€“Inorganic Hybrid Perovskiteâ€type Nonâ€ferroelectric Piezoelectric with Excellent Piezoelectricity. Chemistry - an Asian Journal, 2019, 14, 1028-1033.	3.3	18
85	Experimental Evidence for a Triboluminescent Antiperovskite Ferroelectric: Tris(trimethylammonium) catenaâ€Triâ€μâ€chloroâ€manganate(II) Tetrachloromanganate(II). Angewandte Chemie, 2018, 130, 12115-12118.	2.0	17
86	Domain memory effect in the organic ferroics. Nature Communications, 2022, 13, 2379.	12.8	17
87	Ultrahigh phase transition temperature in a metalâ€“halide perovskite-type material containing unprecedented hydrogen bonding interactions. Dalton Transactions, 2019, 48, 6621-6626.	3.3	16
88	A Chiral Thermochromic Ferroelastic with Seven Physical Channel Switches. Angewandte Chemie, 2020, 132, 9661-9665.	2.0	16
89	A lead-free bismuth iodide organicâ€“inorganic ferroelectric semiconductor. Chemical Communications, 2021, 57, 647-650.	4.1	16
90	Enantiomeric perovskite with a dual phase transition at high temperature. Journal of Materials Chemistry C, 2021, 9, 1918-1922.	5.5	16

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91	Reversible high temperature dielectric switching in a 2H-perovskite compound: [Me₃NCH₂CH₃]CdCl₃. CrystEngComm, 2019, 21, 2669-2674.	2.6	15
92	A Molecular Thermochromic Ferroelectric. Angewandte Chemie, 2020, 132, 3523-3527.	2.0	15
93	Room-temperature dielectric switching in a hostâ€“guest crown ether inclusion complex. Inorganic Chemistry Frontiers, 2021, 8, 4896-4902.	6.0	15
94	A high-temperature molecular ferroelastic phase transition and switchable dielectric response in the trimethylbromomethylammonium salt [C₄H₁₁NBr] [PF₆]. New Journal of Chemistry, 2018, 42, 14909-14913.	2.8	13
95	An unprecedented azobenzene-based organic single-component ferroelectric. Chemical Science, 2022, 13, 4936-4943.	7.4	12
96	A room temperature reversible phase transition containing dielectric switching of a hostâ€“guest supramolecular metalâ€“halide compound. Dalton Transactions, 2017, 46, 12760-12765.	3.3	10
97	Unprecedented Dielectric Bistable Switching in a Binuclear HgII Based Hybrid Compound. European Journal of Inorganic Chemistry, 2019, 2019, 800-807.	2.0	10
98	A high temperature optic-electric duple switching organic ionic compound: 1,4,7-triazoniacyclononane tetrafluoroborate dichloride. Journal of Materials Chemistry C, 2019, 7, 5348-5352.	5.5	9
99	Switchable dielectric phase transition behaviors in two organicâ€“inorganic copper(<scp>ii</scp>) halides with distinct coordination geometries. CrystEngComm, 2018, 20, 6261-6266.	2.6	8
100	Homochiral anionic modification toward the chemical design of organic enantiomeric ferroelectrics. Chemical Communications, 2021, 57, 5171-5174.	4.1	8
101	Optically Controlled Polarization Switching in an Organic Ferroelectric with Light- and Temperature-Triggered Phase Transitions. Chemistry of Materials, 2022, 34, 3067-3075.	6.7	8
102	Three-dimensional organicâ€“inorganic hybrid sodium halide perovskite: C₄H₁₂N₂Â·NaI₃ and a hydrogen-bonded supramolecular three-dimensional network in 3C₄H₁₂N₂Â·NaI₄Â·3IÂ·H₂O. Acta Crystallographica Section C, Structural Chemistry, 2018, 74, 728-733.	0.5	6
103	Opticalâ€Dielectric Duple Bistable Switches: Photoluminescence of Reversible Phase Transition Molecular Material. Chemistry - an Asian Journal, 2019, 14, 3863-3867.	3.3	6
104	Evident Dielectric Relaxation in an Organicâ€Inorganic Halide Perovskite. European Journal of Inorganic Chemistry, 2021, 2021, 2749-2754.	2.0	6
105	An Aboveâ€Roomâ€Temperature Phase Transition with Dielectricâ€Switching Properties in a Halogenobismuthate(III) â€“ Tris(Cyclohexylmethylammonium) Pentabromobismuthate(III) Bromide. European Journal of Inorganic Chemistry, 2017, 2017, 3555-3560.	2.0	5
106	Modulating molecular structures and dielectric transitions in organicâ€“inorganic hybrid crystals. RSC Advances, 2017, 7, 52024-52029.	3.6	3
107	Unprecedented Ferroelectricity and Ferromagnetism in a Cr²⁺â€Based Twoâ€Dimensional Hybrid Perovskite. Angewandte Chemie, 2022, 134, .	2.0	3
108	A high-T_c organic-ionic phase transition crystal obtained from a trivalent cation. CrystEngComm, 2021, 23, 264-267.	2.6	1