

Tao Li

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

5,263
citations

201674

27
h-index

138484

58
g-index

60
all docs

60
docs citations

60
times ranked

8026
citing authors

#	ARTICLE	IF	CITATIONS
1	Grain boundary dominated ion migration in polycrystalline organic-inorganic halide perovskite films. <i>Energy and Environmental Science</i> , 2016, 9, 1752-1759.	30.8	917
2	Monolithic integration of hybrid perovskite single crystals with heterogenous substrate for highly sensitive X-ray imaging. <i>Nature Photonics</i> , 2017, 11, 315-321.	31.4	580
3	Thin Insulating Tunneling Contacts for Efficient and Water-Resistant Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 6734-6739.	21.0	533
4	Molecular doping enabled scalable blading of efficient hole-transport-layer-free perovskite solar cells. <i>Nature Communications</i> , 2018, 9, 1625.	12.8	314
5	Electric-Field-Driven Reversible Conversion Between Methylammonium Lead Triiodide Perovskites and Lead Iodide at Elevated Temperatures. <i>Advanced Energy Materials</i> , 2016, 6, 1501803.	19.5	287
6	CH ₃ NH ₃ PbI ₃ perovskites: Ferroelasticity revealed. <i>Science Advances</i> , 2017, 3, e1602165.	10.3	257
7	Efficient Semitransparent Perovskite Solar Cells for 23.0% Efficiency Perovskite/Silicon Four-Terminal Tandem Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1601128.	19.5	240
8	Is Cu a stable electrode material in hybrid perovskite solar cells for a 30-year lifetime?. <i>Energy and Environmental Science</i> , 2016, 9, 3650-3656.	30.8	239
9	Anomalous photovoltaic effect in organic-inorganic hybrid perovskite solar cells. <i>Science Advances</i> , 2017, 3, e1602164.	10.3	165
10	Large electrostrictive response in lead halide perovskites. <i>Nature Materials</i> , 2018, 17, 1020-1026.	27.5	137
11	Integration of perovskite and polymer photoactive layers to produce ultrafast response, ultraviolet-to-near-infrared, sensitive photodetectors. <i>Materials Horizons</i> , 2017, 4, 242-248.	12.2	127
12	Optical control of polarization in ferroelectric heterostructures. <i>Nature Communications</i> , 2018, 9, 3344.	12.8	119
13	Highly Efficient and Stable Planar Perovskite Solar Cells with Modulated Diffusion Passivation Toward High Power Conversion Efficiency and Ultrahigh Fill Factor. <i>Solar Rrl</i> , 2019, 3, 1900293.	5.8	87
14	Ferroelastic-switching-driven large shear strain and piezoelectricity in a hybrid ferroelectric. <i>Nature Materials</i> , 2021, 20, 612-617.	27.5	87
15	Ultrathin BaTiO ₃ -Based Ferroelectric Tunnel Junctions through Interface Engineering. <i>Nano Letters</i> , 2015, 15, 2568-2573.	9.1	81
16	Polarization-Mediated Modulation of Electronic and Transport Properties of Hybrid MoS ₂ -BaTiO ₃ -SrRuO ₃ Tunnel Junctions. <i>Nano Letters</i> , 2017, 17, 922-927.	9.1	75
17	Phase transition enhanced superior elasticity in freestanding single-crystalline multiferroic BiFeO ₃ membranes. <i>Science Advances</i> , 2020, 6, .	10.3	73
18	A robust neuromorphic vision sensor with optical control of ferroelectric switching. <i>Nano Energy</i> , 2021, 89, 106439.	16.0	73

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19	Metallic surface doping of metal halide perovskites. <i>Nature Communications</i> , 2021, 12, 7.	12.8	66
20	Statics and Dynamics of Ferroelectric Domains in Diisopropylammonium Bromide. <i>Advanced Materials</i> , 2015, 27, 7832-7838.	21.0	60
21	Nanodomain Engineering for Programmable Ferroelectric Devices. <i>Nano Letters</i> , 2019, 19, 3194-3198.	9.1	50
22	Periodic Wrinkle-Engineered Patterned Single-Crystalline Ferroelectric Oxide Membranes with Enhanced Piezoelectricity. <i>Advanced Materials</i> , 2020, 32, e2004477.	21.0	47
23	In situ studies of lithium-ion diffusion in a lithium-rich thin film cathode by scanning probe microscopy techniques. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 22235-22242.	2.8	43
24	Nanodomain Engineering in Ferroelectric Capacitors with Graphene Electrodes. <i>Nano Letters</i> , 2016, 16, 6460-6466.	9.1	41
25	Enhanced photovoltaic effects and switchable conduction behavior in BiFe _{0.6} Sc _{0.4} O ₃ thin films. <i>Acta Materialia</i> , 2015, 88, 83-90.	7.9	37
26	Significance of Dopant/Component Miscibility to Efficient N-Doping in Polymer Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 13021-13028.	8.0	33
27	Piezoelectric properties and surface potential of green abalone shell studied by scanning probe microscopy techniques. <i>Acta Materialia</i> , 2011, 59, 3667-3679.	7.9	32
28	Scaling of electroresistance effect in fully integrated ferroelectric tunnel junctions. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	27
29	Synergistic Interface Layer Optimization and Surface Passivation with Fluorocarbon Molecules toward Efficient and Stable Inverted Planar Perovskite Solar Cells. <i>Research</i> , 2021, 2021, 9836752.	5.7	27
30	Nanoscale piezoelectric and ferroelectric behaviors of seashell by piezoresponse force microscopy. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	26
31	Recent Advance and Modification Strategies of Transition Metal Dichalcogenides (TMDs) in Aqueous Zinc Ion Batteries. <i>Materials</i> , 2022, 15, 2654.	2.9	25
32	Nanoscale elasticity mappings of micro-constituents of abalone shell by band excitation-contact resonance force microscopy. <i>Nanoscale</i> , 2014, 6, 2177-2185.	5.6	24
33	Studies of chain substitution caused sub-fibril level differences in stiffness and ultrastructure of wildtype and oim/oim collagen fibers using multifrequency-AFM and molecular modeling. <i>Biomaterials</i> , 2016, 107, 15-22.	11.4	24
34	Understanding nature's residual strain engineering at the human dentine-enamel junction interface. <i>Acta Biomaterialia</i> , 2016, 32, 256-263.	8.3	23
35	Flexoelectric behavior in PIN-PMN-PT single crystals over a wide temperature range. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	23
36	Probing of Local Multifield Coupling Phenomena of Advanced Materials by Scanning Probe Microscopy Techniques. <i>Advanced Materials</i> , 2018, 30, e1803064.	21.0	22

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37	Nano-hierarchical structure and electromechanical coupling properties of clamshell. <i>Journal of Structural Biology</i> , 2012, 180, 73-83.	2.8	21
38	Probe and Control of the Tiny Amounts of Dopants in BHJ Film Enable Higher Performance of Polymer Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 25115-25124.	8.0	19
39	Identifying the Electrostatic and Entropy-Related Mechanisms for Charge-Transfer Exciton Dissociation at Doped Organic Heterojunctions. <i>Advanced Functional Materials</i> , 2021, 31, 2101892.	14.9	19
40	Voltage induced electrochemical reactions in the single lithium-rich layer-oxide nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10257-10264.	2.8	17
41	Using Light for Better Programming of Ferroelectric Devices: Optoelectronic $\text{MoS}_2/\text{Pb}(\text{Zr,Ti})\text{O}_3$ Memories with Improved On/Off Ratios. <i>Advanced Electronic Materials</i> , 2021, 7, 2001223.	5.1	16
42	Piezo-/ferroelectric phenomena in biomaterials: A brief review of recent progress and perspectives. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	5.1	15
43	In situ studies of nanoscale electromechanical behavior of nacre under flexural stresses using band excitation PFM. <i>Acta Biomaterialia</i> , 2013, 9, 5903-5912.	8.3	13
44	<i>In situ</i> study of Li-ions diffusion and deformation in Li-rich cathode materials by using scanning probe microscopy techniques. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 313001.	2.8	13
45	Structure-Function Correlative Microscopy of Peritubular and Intertubular Dentine. <i>Materials</i> , 2018, 11, 1493.	2.9	12
46	Mechanical-Induced Polarization Switching in Relaxor Ferroelectric Single Crystals. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40758-40768.	8.0	12
47	Fine-Tuning Contact via Complexation for High-Performance Organic Solar Cells. <i>CCS Chemistry</i> , 2022, 4, 1087-1097.	7.8	12
48	Tip-Induced In-Plane Ferroelectric Superstructure in Zigzag-Wrinkled BaTiO_3 Thin Films. <i>Nano Letters</i> , 2022, 22, 2859-2866.	9.1	11
49	Perovskite solar cells with embedded homojunction via nonuniform metal ion doping. <i>Cell Reports Physical Science</i> , 2021, 2, 100415.	5.6	10
50	Resonant band engineering of ferroelectric tunnel junctions. <i>Physical Review B</i> , 2021, 104, .	3.2	10
51	Variation of contact resonance frequency during domain switching in PFM measurements for ferroelectric materials. <i>Journal of Materiomics</i> , 2020, 6, 109-118.	5.7	9
52	Fingerprints of relaxor ferroelectrics: Characteristic hierarchical domain configurations and quantitative performances. <i>Applied Materials Today</i> , 2020, 21, 100789.	4.3	8
53	A visible to near-infrared nanocrystalline organic photodetector with ultrafast photoresponse. <i>Journal of Materials Chemistry C</i> , 2022, 10, 9391-9400.	5.5	8
54	Shear-strain-induced over 90° rotation of local magnetization in FeCoSiB/PMN-PT (011) multiferroic heterostructures. <i>Acta Materialia</i> , 2020, 199, 495-503.	7.9	5

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55	Synaptic $1/f$ noise injection for overfitting suppression in hardware neural networks. <i>Neuromorphic Computing and Engineering</i> , 2022, 2, 034006.	5.9	5
56	Ferroelastic domain structure and phase transition in single-crystalline $[\text{PbZn}_{1/3}\text{Nb}_{2/3}\text{O}_3]_{1-x}[\text{PbTiO}_3]_x$ observed via in situ x-ray microbeam. <i>Journal of the European Ceramic Society</i> , 2018, 38, 1488-1497.	5.7	4
57	Chain substitution caused sub-fibril level differences in electromechanical structure and property of wild-type and oim/oim collagen fibers. <i>Journal of Applied Physics</i> , 2020, 128, 235111.	2.5	1
58	Conductivity Modulation of a Slit Channel in a Monolayer MoS ₂ Homostructure. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 2000082.	2.4	0