

Lei Jin

List of Publications by Year in descending order

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85
papers

2,519
citations

218677

26
h-index

214800

47
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88
all docs

88
docs citations

88
times ranked

4342
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrahigh Energy Storage Performance of Lead-Free Oxide Multilayer Film Capacitors via Interface Engineering. <i>Advanced Materials</i> , 2017, 29, 1604427.	21.0	247
2	Stable iridium dinuclear heterogeneous catalysts supported on metal-oxide substrate for solar water oxidation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 2902-2907.	7.1	229
3	Boosting the Thermoelectric Performance of (Na,K)-Codoped Polycrystalline SnSe by Synergistic Tailoring of the Band Structure and Atomic-Scale Defect Phonon Scattering. <i>Journal of the American Chemical Society</i> , 2017, 139, 9714-9720.	13.7	168
4	Tuning electrochemically driven surface transformation in atomically flat LaNiO ₃ thin films for enhanced water electrolysis. <i>Nature Materials</i> , 2021, 20, 674-682.	27.5	105
5	Template-free synthesis of BiVO ₄ nanostructures: I. Nanotubes with hexagonal cross sections by oriented attachment and their photocatalytic property for water splitting under visible light. <i>Nanotechnology</i> , 2009, 20, 115603.	2.6	103
6	Carrier lifetime enhancement in halide perovskite via remote epitaxy. <i>Nature Communications</i> , 2019, 10, 4145.	12.8	93
7	Twin boundary defect engineering improves lithium-ion diffusion for fast-charging spinel cathode materials. <i>Nature Communications</i> , 2021, 12, 3085.	12.8	77
8	Electron ptychographic phase imaging of light elements in crystalline materials using Wigner distribution deconvolution. <i>Ultramicroscopy</i> , 2017, 180, 173-179.	1.9	67
9	Template-free synthesis of BiVO ₄ nanostructures: II. Relationship between various microstructures for monoclinic BiVO ₄ and their photocatalytic activity for the degradation of rhodamine B under visible light. <i>Nanotechnology</i> , 2009, 20, 405602.	2.6	64
10	Boosting Photoelectrochemical Water Oxidation of Hematite in Acidic Electrolytes by Surface State Modification. <i>Advanced Energy Materials</i> , 2019, 9, 1901836.	19.5	64
11	Atomic scale imaging of magnetic circular dichroism by achromatic electron microscopy. <i>Nature Materials</i> , 2018, 17, 221-225.	27.5	60
12	Topological Defects with Distinct Dipole Configurations in PbTiO_3 Multilayer Films. <i>Physical Review Letters</i> , 2018, 120, 177601.	7.8	55
13	Understanding Nanostructuring Processes in Thermoelectrics and Their Effects on Lattice Thermal Conductivity. <i>Advanced Materials</i> , 2016, 28, 2737-2743.	21.0	54
14	Nonstoichiometry accommodation in SrTiO ₃ thin films studied by positron annihilation and electron microscopy. <i>Physical Review B</i> , 2013, 87, .	3.2	52
15	Predicting 3D Structure, Flexibility, and Stability of RNA Hairpins in Monovalent and Divalent Ion Solutions. <i>Biophysical Journal</i> , 2015, 109, 2654-2665.	0.5	51
16	Tunneling anisotropic magnetoresistance driven by magnetic phase transition. <i>Nature Communications</i> , 2017, 8, 449.	12.8	49
17	Formation of aligned ZnO nanotube arrays by chemical etching and coupling with CdSe for photovoltaic application. <i>Thin Solid Films</i> , 2010, 518, 5146-5152.	1.8	39
18	Ordering and Phase Control in Epitaxial Double-Perovskite Catalysts for the Oxygen Evolution Reaction. <i>ACS Catalysis</i> , 2017, 7, 7029-7037.	11.2	35

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19	Predicting 3D structure and stability of RNA pseudoknots in monovalent and divalent ion solutions. <i>PLoS Computational Biology</i> , 2018, 14, e1006222.	3.2	35
20	Tuning Li-enrichment in high-Ni layered oxide cathodes to optimize electrochemical performance for Li-ion battery. <i>Nano Energy</i> , 2019, 62, 709-717.	16.0	33
21	Nanodomains and nanometer-scale disorder in multiferroic bismuth ferrite single crystals. <i>Acta Materialia</i> , 2015, 82, 356-368.	7.9	32
22	A highly-stable layered Fe/Mn-based cathode with ultralow strain for advanced sodium-ion batteries. <i>Nano Energy</i> , 2021, 88, 106206.	16.0	32
23	Synthesis and analysis of abnormal wurtzite ZnSe nanowheels. <i>Journal of Applied Physics</i> , 2007, 102, 044302.	2.5	31
24	TEM study of $\sim 110^\circ$ -type 35.26° dislocations specially induced by polishing of SrTiO ₃ single crystals. <i>Ultramicroscopy</i> , 2013, 134, 77-85.	1.9	31
25	Polarization-induced Charge Distribution at Homogeneous Zincblende/Wurtzite Heterostructural Junctions in ZnSe Nanobelts. <i>Advanced Materials</i> , 2012, 24, 1328-1332.	21.0	30
26	Triple-Crystal Zinc Selenide Nanobelts. <i>Journal of Physical Chemistry C</i> , 2007, 111, 9055-9059.	3.1	28
27	Modeling Structure, Stability, and Flexibility of Double-Stranded RNAs in Salt Solutions. <i>Biophysical Journal</i> , 2018, 115, 1403-1416.	0.5	28
28	Controlled Charging of Ferroelastic Domain Walls in Oxide Ferroelectrics. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6539-6546.	8.0	27
29	Dislocation Evolution and Migration at Grain Boundaries in Thermoelectric SnTe. <i>ACS Applied Energy Materials</i> , 2019, 2, 2392-2397.	5.1	27
30	Structure folding of RNA kissing complexes in salt solutions: predicting 3D structure, stability, and folding pathway. <i>Rna</i> , 2019, 25, 1532-1548.	3.5	24
31	What is the best reference state for building statistical potentials in RNA 3D structure evaluation?. <i>Rna</i> , 2019, 25, 793-812.	3.5	23
32	Direct Demonstration of a Magnetic Dead Layer Resulting from A-site Cation Inhomogeneity in a (La,Sr)MnO ₃ Epitaxial Film System. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600414.	3.7	22
33	Diffusional-displacive transformation enables formation of long-period stacking order in magnesium. <i>Scientific Reports</i> , 2017, 7, 4046.	3.3	22
34	Electrolysis of Water at Atomically Tailored Epitaxial Cobaltite Surfaces. <i>Chemistry of Materials</i> , 2019, 31, 2337-2346.	6.7	22
35	Spherical aberration correction in a scanning transmission electron microscope using a sculpted thin film. <i>Ultramicroscopy</i> , 2018, 189, 46-53.	1.9	21
36	Unconventional anomalous Hall effect driven by oxygen-octahedra-tailoring of the SrRuO ₃ structure. <i>JPhys Materials</i> , 2019, 2, 034008.	4.2	21

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37	Etching-Assisted Route to Heterophase Au Nanowires with Multiple Types of Active Surface Sites for Silane Oxidation. Nano Letters, 2019, 19, 6363-6369.	9.1	19
38	Realizing high thermoelectric performance in n-type SnSe polycrystals via (Pb, Br) co-doping and multi-nanoprecipitates synergy. Journal of Alloys and Compounds, 2021, 864, 158401.	5.5	19
39	{113} Twinned ZnSe Bicrystal Nanobelts Filled with Li^+ Twinning. Journal of Physical Chemistry C, 2008, 112, 4903-4907.	3.1	18
40	Origin of the hump anomalies in the Hall resistance loops of ultrathin SrRuO_3 multilayers. Physical Review Materials, 2021, 5, .	2.4	18
41	Exsolution of Embedded Nanoparticles in Defect Engineered Perovskite Layers. ACS Nano, 2021, 15, 4546-4560.	14.6	18
42	Domain matching epitaxy of BaBiO_3 on SrTiO_3 with structurally modified interface. Applied Physics Letters, 2018, 112, 141601.	3.3	17
43	Electronic Inhomogeneity Influence on the Anomalous Hall Resistivity Loops of SrRuO_3 Epitaxially Interfaced with 5d Perovskites. ACS Omega, 2020, 5, 5824-5833.	3.5	16
44	Atomic resolution imaging of YAlO_3 : Ce in the chromatic and spherical aberration corrected PICO electron microscope. Ultramicroscopy, 2017, 176, 99-104.	1.9	15
45	Atomic Structure and Electron Magnetic Circular Dichroism of Individual Rock Salt Structure Antiphase Boundaries in Spinel Ferrites. Advanced Functional Materials, 2021, 31, 2008306.	14.9	15
46	Towards a holographic approach to spherical aberration correction in scanning transmission electron microscopy. Optics Express, 2017, 25, 21851.	3.4	14
47	Growth of ZnSe Nanospirals with Bending Mediated by Lomer-Cottrell Sessile Dislocations through Varying Pressure. Crystal Growth and Design, 2008, 8, 3829-3833.	3.0	13
48	Surface reconstructions and related local properties of a BiFeO_3 thin film. Scientific Reports, 2017, 7, 39698.	3.3	13
49	Enhanced room-temperature magnetoresistance in high-temperature sintered $\text{La}_{2/3}\text{Sr}_{1/3}\text{MnO}_3$ doped with ZrO_2 . Physica B: Condensed Matter, 2007, 391, 206-211.	2.7	12
50	Fabrication and characterization of amorphous silica nanostructures. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4622-4626.	2.1	12
51	ZnSe Heterocrystalline Junctions Based on Zinc Blende-Wurtzite Polytypism. Journal of Physical Chemistry C, 2010, 114, 1411-1415.	3.1	12
52	Mobility Modulation and Suppression of Defect Formation in Two-Dimensional Electron Systems by Charge-Transfer Management. ACS Applied Materials & Interfaces, 2017, 9, 10888-10896.	8.0	12
53	Effect of cation ratio and order on magnetic circular dichroism in the double perovskite $\text{Sr}_2\text{Fe}_{1+x}\text{Re}_{1-x}\text{O}_6$. Ultramicroscopy, 2018, 193, 137-142.	1.9	11
54	Magnetic coupling of ferromagnetic SrRuO_3 epitaxial layers separated by ultrathin non-magnetic $\text{SrZrO}_3/\text{SrIrO}_3$. Applied Physics Letters, 2018, 113, .	3.3	10

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55	Atomic-scale evidence for displacive disorder in bismuth zinc niobate pyrochlore. <i>Ultramicroscopy</i> , 2018, 192, 57-68.	1.9	10
56	The grain boundary resistance of CeO ₂ ceramics: A combined microscopy spectroscopy simulation study of a dilute solution. <i>Journal of the American Ceramic Society</i> , 2020, 103, 1755-1764.	3.8	10
57	Twinning mediated growth of ZnSe tri- and bi-crystal nanobelts with single crystalline wurtzite nanobelts as building blocks. <i>CrystEngComm</i> , 2010, 12, 150-158.	2.6	9
58	Ultrathin highly uniform Ni(Al) germanosilicide layer with modulated B8 type Ni ₅ (SiGe) ₃ phase formed on strained Si _{1-x} Ge _x layers. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	9
59	Nanoscale measurement of giant saturation magnetization in $\hat{\pm}\text{Fe}^{16}\text{N}_2$ by electron energy-loss magnetic chiral dichroism. <i>Ultramicroscopy</i> , 2019, 203, 37-43.	1.9	9
60	Atomic-Scale Observation of Off-Centering Rattlers in Filled Skutterudites. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	8
61	Orientation domains in vacancy-ordered titanium monoxide. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2013, 69, 589-594.	1.1	7
62	Engineering 180° ferroelectric domains in epitaxial PbTiO ₃ thin films by varying the thickness of the underlying (La,Sr)MnO ₃ layer. <i>Applied Physics Letters</i> , 2014, 105, 132903.	3.3	7
63	Polarity continuation and frustration in ZnSe nanospirals. <i>Scientific Reports</i> , 2014, 4, 7447.	3.3	7
64	Atomic-Scale Interface Structure in Domain Matching Epitaxial BaBiO ₃ Thin Films Grown on SrTiO ₃ Substrates. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 2000054.	2.4	7
65	Stoichiometry and Termination Control of LaAlO ₃ /SrTiO ₃ Bilayer Interfaces. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001477.	3.7	7
66	On the origin of 'iron-cross' twins of pyrite from Mt. Katarina, Slovenia. <i>Mineralogical Magazine</i> , 2016, 80, 937-948.	1.4	6
67	Versatile Route to the Controlled Synthesis of Multilevel Branched Silicon Submicrometer/Nanostructures. <i>Journal of Physical Chemistry C</i> , 2010, 114, 134-138.	3.1	5
68	Microstructure and Photoluminescence Studies of Sb-Doped SnO ₂ Zigzag Nanobelts. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 6629-6633.	0.9	4
69	Ultrathin homogeneous Ni(Al) germanosilicide layer formation on strained SiGe with Al/Ni multi-layers. <i>Microelectronic Engineering</i> , 2015, 137, 88-91.	2.4	4
70	Structure and orbital ordering of ultrathin LaVO ₃ probed by atomic resolution electron microscopy and Raman spectroscopy. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1600350.	2.4	4
71	Atomic-Scale Characterization of Commensurate and Incommensurate Vacancy Superstructures in Natural Pyrrhotites. <i>American Mineralogist</i> , 2021, 106, 82-96.	1.9	4
72	Differentiation between strain and charge mediated magnetoelectric coupling in La _{0.7} Sr _{0.3} MnO ₃ /Pb(Mg _{1/3} Nb _{2/3}) _{0.7} Ti _{0.3} O ₃ . <i>New Journal of Physics</i> , 2021, 23, 063043.	2.9	4

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73	Surface modification of single crystal LiTaO ₃ by H and He implantation. Nuclear Instruments & Methods in Physics Research B, 2017, 392, 62-66.	1.4	3
74	Solution Monolayer Epitaxy for Tunable Atomically Sharp Oxide Interfaces. Advanced Materials Interfaces, 2017, 4, 1700688.	3.7	3
75	Heteroepitaxial growth and interface structure of pyrochlore (Ca,Ti) ₂ (Nb,Ti) ₂ O ₇ thin films on (111)NdGaO ₃ substrates. Journal of Crystal Growth, 2018, 484, 64-69.	1.5	3
76	Quantitative HRTEM and its application in the study of oxide materials. Chinese Physics B, 2018, 27, 056803.	1.4	3
77	Atomic scale study of the oxygen annealing effect on piezoelectricity enhancement of (K,Na)NbO ₃ nanorods. Journal of Materials Chemistry C, 2020, 8, 15830-15838.	5.5	3
78	Enhancing the ferromagnetic interlayer coupling between epitaxial SrRuO ₃ layers. Physical Review B, 2021, 104, .	6.2	1
79	Atomic-scale understanding of enhanced polarization of highly strained nanoscale columnar PbTiO ₃ . Physical Review B, 2021, 104, .	3.2	2
80	Growth mechanism of titanium monoxide TiO _x on a reduced calcium titanate CaTi ₂ O ₄ surface. Journal of Applied Crystallography, 2015, 48, 1889-1895.	4.5	1
81	Dislocation bending in GaN/step-graded (Al,Ga)N/AlN buffer layers on Si(111) investigated by STM and STEM. Philosophical Magazine, 2018, 98, 3072-3085.	1.6	1
82	Photoelectrochemical Water Splitting: Boosting Photoelectrochemical Water Oxidation of Hematite in Acidic Electrolytes by Surface State Modification (Adv. Energy Mater. 34/2019). Advanced Energy Materials, 2019, 9, 1970131.	19.5	1
83	Boosting Photoelectrochemical Water Oxidation of Hematite by Surface States Modification. SSRN Electronic Journal, 0, , .	0.4	1
84	Atomic Resolution Imaging of YAlO ₃ :Ce in the Chromatic and Spherical Aberration Corrected PICO Transmission Electron Microscope. Microscopy and Microanalysis, 2017, 23, 422-423.	0.4	0
85	Growth and characterization of pyrochlore-type (Ca,Ti) ₂ (Nb,Ti) ₂ O ₇ thin films. Thin Solid Films, 2021, 721, 138546.	1.8	0