

Fei Xue

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

2,164
citations

218592

26
h-index

233338

45
g-index

61
all docs

61
docs citations

61
times ranked

2789
citing authors

#	ARTICLE	IF	CITATIONS
1	Isostructural metal-insulator transition in VO ₂ . Science, 2018, 362, 1037-1040.	6.0	158
2	Stability of Polar Vortex Lattice in Ferroelectric Superlattices. Nano Letters, 2017, 17, 2246-2252.	4.5	131
3	Thermotropic phase boundaries in classic ferroelectrics. Nature Communications, 2014, 5, 3172.	5.8	123
4	Improved high temperature ϵ^2 stability of Co-Al-W-base alloys containing Ti and Ta. Materials Letters, 2013, 112, 215-218.	1.3	109
5	Sharpened VO ₂ Phase Transition via Controlled Release of Epitaxial Strain. Nano Letters, 2017, 17, 5614-5619.	4.5	93
6	Configurable topological textures in strain graded ferroelectric nanoplates. Nature Communications, 2018, 9, 403.	5.8	91
7	Creep behavior in a ϵ^2 strengthened Co-Al-W-Ta-Ti single-crystal alloy at 1000 °C. Scripta Materialia, 2015, 97, 37-40.	2.6	86
8	Phase transition enhanced superior elasticity in freestanding single-crystalline multiferroic BiFeO ₃ membranes. Science Advances, 2020, 6, .	4.7	73
9	Improved High-Temperature Microstructural Stability and Creep Property of Novel Co-Base Single-Crystal Alloys Containing Ta and Ti. Jom, 2014, 66, 2486-2494.	0.9	66
10	Stability of the M2 phase of vanadium dioxide induced by coherent epitaxial strain. Physical Review B, 2016, 94, .	1.1	62
11	Thermodynamic potential and phase diagram for multiferroic bismuth ferrite (BiFeO ₃). Npj Computational Materials, 2017, 3, .	3.5	62
12	Inversion Symmetry Breaking by Oxygen Octahedral Rotations in the Ruddlesden-Popper $\text{Na}_x\text{R}_{1-x}\text{TiO}_3$ Physical Review Letters, 2014, 112, 187602.	3.9	60
13	Interfacial Coupling Boosts Giant Electrocaloric Effects in Relaxor Polymer Nanocomposites: In Situ Characterization and Phase-Field Simulation. Advanced Materials, 2019, 31, e1801949.	11.1	60
14	Double minimum creep in the rafting regime of a single-crystal Co-base superalloy. Scripta Materialia, 2018, 142, 129-132.	2.6	51
15	Disrupting long-range polar order with an electric field. Physical Review B, 2016, 93, .	1.1	50
16	Composition- and pressure-induced ferroelectric to antiferroelectric phase transitions in Sm-doped BiFeO ₃ system. Applied Physics Letters, 2015, 106, .	1.5	49
17	Permanent ferroelectric retention of BiFeO ₃ mesocrystal. Nature Communications, 2016, 7, 13199.	5.8	49
18	Giant Ferroelectric Polarization in Ultrathin Ferroelectrics via Boundary-Condition Engineering. Advanced Materials, 2017, 29, 1701475.	11.1	47

#	ARTICLE	IF	CITATIONS
19	Domain topology and domain switching kinetics in a hybrid improper ferroelectric. <i>Nature Communications</i> , 2016, 7, 11602.	5.8	46
20	Reversible phase transition induced large piezoelectric response in Sm-doped BiFeO_3 with a composition near the morphotropic phase boundary. <i>Physical Review B</i> , 2017, 95, .	1.1	46
21	Giant elastic tunability in strained BiFeO_3 near an electrically induced phase transition. <i>Nature Communications</i> , 2015, 6, 8985.	5.8	43
22	Atomic and electronic basis for solutes strengthened (010) anti-phase boundary of $\text{L12 Co}_3(\text{Al, TM})$: A comprehensive first-principles study. <i>Acta Materialia</i> , 2018, 145, 30-40.	3.8	40
23	Quasi-one-dimensional metallic conduction channels in exotic ferroelectric topological defects. <i>Nature Communications</i> , 2021, 12, 1306.	5.8	40
24	Mechanical Switching of Nanoscale Multiferroic Phase Boundaries. <i>Advanced Functional Materials</i> , 2015, 25, 3405-3413.	7.8	38
25	Lead-free $(\text{Ag,K})\text{NbO}_3$ materials for high-performance explosive energy conversion. <i>Science Advances</i> , 2020, 6, eaba0367.	4.7	38
26	Orientations of low-energy domain walls in perovskites with oxygen octahedral tilts. <i>Physical Review B</i> , 2014, 90, .	1.1	36
27	Microstructure and creep performance of a multicomponent Co-based L12 ordered intermetallic alloy. <i>Acta Materialia</i> , 2020, 196, 396-408.	3.8	26
28	Strain phase separation: Formation of ferroelastic domain structures. <i>Physical Review B</i> , 2016, 94, .	1.1	25
29	Understanding creep of a single-crystalline Co-Al-W-Ta superalloy by studying the deformation mechanism, segregation tendency and stacking fault energy. <i>Acta Materialia</i> , 2021, 214, 117019.	3.8	23
30	Theory of strain phase separation and strain spinodal: Applications to ferroelastic and ferroelectric systems. <i>Acta Materialia</i> , 2017, 133, 147-159.	3.8	20
31	On the Precipitation-Strengthening Contribution of the Ta-Containing $\text{Co}_3(\text{Al,W})$ -Phase to the Creep Properties of $\text{L1}_2/\text{L1}_0$ Cobalt-Base Superalloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 1567-1574.	1.1	20
32	Anomalous Electronic Anisotropy Triggered by Ferroelastic Coupling in Multiferroic Heterostructures. <i>Advanced Materials</i> , 2016, 28, 876-883.	11.1	19
33	Switching the curl of polarization vectors by an irrotational electric field. <i>Physical Review B</i> , 2016, 94, .	1.1	19
34	Interaction Dynamics Between Ferroelectric and Antiferroelectric Domains in a PbZrO_3 -Based Ceramic. <i>Physical Review Applied</i> , 2019, 11, .	1.5	19
35	Segregation-assisted phase transformation and anti-phase boundary formation during creep of a L1_2 -strengthened Co-based superalloy at high temperatures. <i>Acta Materialia</i> , 2021, 215, 117099.	3.8	19
36	Creep behavior of a novel Co-Al-W-base single crystal alloy containing Ta and Ti at 982°C . <i>MATEC Web of Conferences</i> , 2014, 14, 15002.	0.1	18

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37	Liberating a hidden antiferroelectric phase with interfacial electrostatic engineering. <i>Science Advances</i> , 2022, 8, eabg5860.	4.7	18
38	Evolution of the statistical distribution in a topological defect network. <i>Scientific Reports</i> , 2015, 5, 17057.	1.6	17
39	Deterministic Ferroelastic Domain Switching Using Ferroelectric Bilayers. <i>Nano Letters</i> , 2019, 19, 5319-5326.	4.5	15
40	Ferroelastically protected polarization switching pathways to control electrical conductivity in strain-graded ferroelectric nanoplates. <i>Physical Review Materials</i> , 2018, 2, .	0.9	14
41	Strain-induced incommensurate phases in hexagonal manganites. <i>Physical Review B</i> , 2017, 96, .	1.1	13
42	Nano-imaging of strain-tuned stripe textures in a Mott crystal. <i>Npj Quantum Materials</i> , 2021, 6, .	1.8	12
43	Design of a Co-Al-W-Ta Alloy Series with Varying $\hat{\rho}^2$ Volume Fraction and Their Thermophysical Properties. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 3931-3944.	1.1	11
44	Topological dynamics of vortex-line networks in hexagonal manganites. <i>Physical Review B</i> , 2018, 97, .	1.1	10
45	Microstructure and Properties Evolution of Co-Al-W-Ni-Cr Superalloys by Molybdenum and Niobium Substitutions for Tungsten. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 299-308.	1.1	10
46	Corrosion behavior of mechanical clad pipe welded joints in CO ₂ -saturated seawater under high temperature and high pressure. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2013, 64, 544-549.	0.8	8
47	Presence of a purely tetragonal phase in ultrathin BiFeO ₃ films: Thermodynamics and phase-field simulations. <i>Acta Materialia</i> , 2020, 183, 110-117.	3.8	8
48	Phase-field framework with constraints and its applications to ductile fracture in polycrystals and fatigue. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	8
49	Flexoelectric Domain Walls Originated from Structural Phase Transition in Epitaxial BiVO ₄ Films. <i>Small</i> , 2022, 18, e2107540.	5.2	8
50	Understanding raft formation and precipitate shearing during double minimum creep in a $\hat{\rho}^2$ -strengthened single crystalline Co-base superalloy. <i>Philosophical Magazine</i> , 2021, 101, 326-353.	0.7	6
51	Pressure and electric field effects on piezoelectric responses of KNbO ₃ . <i>Journal of Applied Physics</i> , 2012, 112, 064106.	1.1	5
52	Evolution of topological defects at two sequential phase transitions of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{Nd} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \langle \text{mml:mathvariant="normal"} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 7 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$. <i>Physical Review Research</i> , 2021, 3, .	1.3	5
53	Anisotropic superconductivity induced by periodic multiferroic domain patterns. <i>NPG Asia Materials</i> , 2019, 11, .	3.8	4
54	Linearly aligned single-chiral vortices in hexagonal manganites by $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \text{mathvariant="italic"} \rangle \text{in} \langle \text{mml:mi} \rangle \langle \text{mml:mspace width="4pt"} \rangle \langle \text{mml:mi} \text{mathvariant="italic"} \rangle \text{situ} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ electric arc heating. <i>Physical Review Materials</i> , 2018, 2, .	0.9	4

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55	The effects of diffusional couplings on compositional trajectories and interfacial free energies during phase separation in a quaternary Ni-Al-Cr-Re model superalloy. <i>Acta Materialia</i> , 2022, 234, 118020.	3.8	4
56	Stability and low-energy orientations of interphase boundaries in multiaxial ferroelectrics: Phase-field simulations. <i>Physical Review B</i> , 2022, 105, .	1.1	3
57	Size Effect on Spontaneous Flux-closure Domains in BiFeO ₃ Thin Films. <i>Microscopy and Microanalysis</i> , 2016, 22, 1596-1597.	0.2	2
58	Stress Analysis of the Steam-Side Oxide of Boiler Tubes: Contributions from Thermal Strain, Interface Roughness, Creep, and Oxide Growth. <i>Oxidation of Metals</i> , 2020, 93, 515-543.	1.0	2
59	Theory and phase-field simulations of electrical control of spin cycloids in a multiferroic. <i>Physical Review B</i> , 2021, 103, .	1.1	2
60	Long-Term Aging Effect on the Crack Growth in the Main Circulating Pump Casing Material. <i>Strength of Materials</i> , 2015, 47, 100-107.	0.2	1