

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
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61
all docs

61
docs citations

61
times ranked

2789
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Stability and low-energy orientations of interphase boundaries in multiaxial ferroelectrics: Phase-field simulations. <i>Physical Review B</i> , 2022, 105, .	1.1	3
3	Liberating a hidden antiferroelectric phase with interfacial electrostatic engineering. <i>Science Advances</i> , 2022, 8, eabg5860.	4.7	18
4	Flexoelectric Domain Walls Originated from Structural Phase Transition in Epitaxial BiVO ₄ Films. <i>Small</i> , 2022, 18, e2107540.	5.2	8
5	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
6	Understanding raft formation and precipitate shearing during double minimum creep in a $\hat{\gamma}$ -strengthened single crystalline Co-base superalloy. <i>Philosophical Magazine</i> , 2021, 101, 326-353.	0.7	6
7	Theory and phase-field simulations of electrical control of spin cycloids in a multiferroic. <i>Physical Review B</i> , 2021, 103, .	1.1	2
8	Quasi-one-dimensional metallic conduction channels in exotic ferroelectric topological defects. <i>Nature Communications</i> , 2021, 12, 1306.	5.8	40
9	Nano-imaging of strain-tuned stripe textures in a Mott crystal. <i>Npj Quantum Materials</i> , 2021, 6, .	1.8	12
10	Evolution of topological defects at two sequential phase transitions of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mi} \rangle \text{Nd} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mathvariant="normal"} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 7 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \langle \text{mml:mrow} \langle \text{mml:math} \rangle .$	1.3	5
11	Design of a Co-Al-W-Ta Alloy Series with Varying $\hat{\gamma}$ 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
12	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
13	Segregation-assisted phase transformation and anti-phase boundary formation during creep of a $\hat{\gamma}$ -strengthened Co-based superalloy at high temperatures. <i>Acta Materialia</i> , 2021, 215, 117099.	3.8	19
14	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
15	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
16	Phase transition enhanced superior elasticity in freestanding single-crystalline multiferroic BiFeO ₃ membranes. <i>Science Advances</i> , 2020, 6, .	4.7	73
17	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
18	Lead-free (Ag,K)NbO ₃ materials for high-performance explosive energy conversion. <i>Science Advances</i> , 2020, 6, eaba0367.	4.7	38

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19	On the Precipitation-Strengthening Contribution of the Ta-Containing Co ₃ (Al,W)-Phase to the Creep Properties of γ/γ' Cobalt-Base Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 1567-1574.	1.1	20
20	Microstructure and creep performance of a multicomponent Co-based L12 ordered intermetallic alloy. Acta Materialia, 2020, 196, 396-408.	3.8	26
21	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
22	Deterministic Ferroelastic Domain Switching Using Ferroelectric Bilayers. Nano Letters, 2019, 19, 5319-5326.	4.5	15
23	Interaction Dynamics Between Ferroelectric and Antiferroelectric Domains in a PbZrO ₃ -Based Ceramic. Physical Review Applied, 2019, 11, .	1.5	19
24	Anisotropic superconductivity induced by periodic multiferroic domain patterns. NPG Asia Materials, 2019, 11, .	3.8	4
25	Configurable topological textures in strain graded ferroelectric nanoplates. Nature Communications, 2018, 9, 403.	5.8	91
26	Topological dynamics of vortex-line networks in hexagonal manganites. Physical Review B, 2018, 97, .	1.1	10
27	Double minimum creep in the rafting regime of a single-crystal Co-base superalloy. Scripta Materialia, 2018, 142, 129-132.	2.6	51
28	Atomic and electronic basis for solutes strengthened (010) anti-phase boundary of L12 Co ₃ (Al, TM): A comprehensive first-principles study. Acta Materialia, 2018, 145, 30-40.	3.8	40
29	Isostructural metal-insulator transition in VO ₂ . Science, 2018, 362, 1037-1040.	6.0	158
30	Linearly aligned single-chiral vortices in hexagonal manganites by $\langle \mathit{in} \mathit{electric\ arc\ heating} \rangle$. Physical Review Materials, 2018, 2, .	0.9	4
31	Ferroelastically protected polarization switching pathways to control electrical conductivity in strain-graded ferroelectric nanoplates. Physical Review Materials, 2018, 2, .	0.9	14
32	Stability of Polar Vortex Lattice in Ferroelectric Superlattices. Nano Letters, 2017, 17, 2246-2252.	4.5	131
33	Thermodynamic potential and phase diagram for multiferroic bismuth ferrite (BiFeO ₃). Npj Computational Materials, 2017, 3, .	3.5	62
34	Theory of strain phase separation and strain spinodal: Applications to ferroelastic and ferroelectric systems. Acta Materialia, 2017, 133, 147-159.	3.8	20
35	Strain-induced incommensurate phases in hexagonal manganites. Physical Review B, 2017, 96, .	1.1	13
36	Sharpened VO ₂ Phase Transition via Controlled Release of Epitaxial Strain. Nano Letters, 2017, 17, 5614-5619.	4.5	93

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37	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
38	Giant Ferroelectric Polarization in Ultrathin Ferroelectrics via Boundary Condition Engineering. <i>Advanced Materials</i> , 2017, 29, 1701475.	11.1	47
39	Anomalous Electronic Anisotropy Triggered by Ferroelastic Coupling in Multiferroic Heterostructures. <i>Advanced Materials</i> , 2016, 28, 876-883.	11.1	19
40	Strain phase separation: Formation of ferroelastic domain structures. <i>Physical Review B</i> , 2016, 94, .	1.1	25
41	Size Effect on Spontaneous Flux-closure Domains in BiFeO_3 Thin Films. <i>Microscopy and Microanalysis</i> , 2016, 22, 1596-1597.	0.2	2
42	Stability of the M2 phase of vanadium dioxide induced by coherent epitaxial strain. <i>Physical Review B</i> , 2016, 94, .	1.1	62
43	Domain topology and domain switching kinetics in a hybrid improper ferroelectric. <i>Nature Communications</i> , 2016, 7, 11602.	5.8	46
44	Disrupting long-range polar order with an electric field. <i>Physical Review B</i> , 2016, 93, .	1.1	50
45	Permanent ferroelectric retention of BiFeO_3 mesocrystal. <i>Nature Communications</i> , 2016, 7, 13199.	5.8	49
46	Switching the curl of polarization vectors by an irrotational electric field. <i>Physical Review B</i> , 2016, 94, .	1.1	19
47	Evolution of the statistical distribution in a topological defect network. <i>Scientific Reports</i> , 2015, 5, 17057.	1.6	17
48	Composition- and pressure-induced ferroelectric to antiferroelectric phase transitions in Sm-doped BiFeO_3 system. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	49
49	Mechanical Switching of Nanoscale Multiferroic Phase Boundaries. <i>Advanced Functional Materials</i> , 2015, 25, 3405-3413.	7.8	38
50	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
51	Giant elastic tunability in strained BiFeO_3 near an electrically induced phase transition. <i>Nature Communications</i> , 2015, 6, 8985.	5.8	43
52	Creep behavior in a β -strengthened Co-Al-W-Ta-Ti single-crystal alloy at 1000 $^{\circ}\text{C}$. <i>Scripta Materialia</i> , 2015, 97, 37-40.	2.6	86
53	Improved High-Temperature Microstructural Stability and Creep Property of Novel Co-Base Single-Crystal Alloys Containing Ta and Ti. <i>Jom</i> , 2014, 66, 2486-2494.	0.9	66
54	Orientations of low-energy domain walls in perovskites with oxygen octahedral tilts. <i>Physical Review B</i> , 2014, 90, .	1.1	36

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55	Inversion Symmetry Breaking by Oxygen Octahedral Rotations in the Ruddlesden-Popper $\text{Na}_x\text{R}_{1-x}\text{TiO}_{3-2x}$. Physical Review Letters, 2014, 112, 187602.	3.9	60
56	Thermotropic phase boundaries in classic ferroelectrics. Nature Communications, 2014, 5, 3172.	5.8	123
57	Creep behavior of a novel Co-Al-W-base single crystal alloy containing Ta and Ti at 982°C. MATEC Web of Conferences, 2014, 14, 15002.	0.1	18
58	Corrosion behavior of mechanical clad pipe welded joints in CO_2 -saturated seawater under high temperature and high pressure. Materials and Corrosion - Werkstoffe Und Korrosion, 2013, 64, 544-549.	0.8	8
59	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
60	Pressure and electric field effects on piezoelectric responses of KNbO_3 . Journal of Applied Physics, 2012, 112, 064106.	1.1	5