Yulan Li

List of Publications by Citations

116 papers	8,908 citations	42 h-index	94 g-index
122 ext. papers	9,644 ext. citations	5.2 avg, IF	5.42 L-index

#	Paper	IF	Citations
116	Room-temperature ferroelectricity in strained SrTiO3. *Nature*, **2004**, 430, 758-61	50.4	1631
115	Enhancement of ferroelectricity in strained BaTiO3 thin films. *Science*, **2004**, 306, 1005-9	33.3	1459
114	Effect of substrate constraint on the stability and evolution of ferroelectric domain structures in thin films. *Acta Materialia*, **2002**, 50, 395-411	8.4	392
113	Ferroelastic switching for nanoscale non-volatile magnetoelectric devices. *Nature Materials*, **2010**, 9, 309-14	27	344
112	A ferroelectric oxide made directly on silicon. *Science*, **2009**, 324, 367-70	33.3	320
111	A phenomenological thermodynamic potential for BaTiO3 single crystals. *Journal of Applied Physics*, **2005**, 98, 064101	2.5	310
110	Phase-field model of domain structures in ferroelectric thin films. *Applied Physics Letters*, **2001**, 78, 3878-3880	3.4	276
109	Probing nanoscale ferroelectricity by ultraviolet Raman spectroscopy. *Science*, **2006**, 313, 1614-6	33.3	272
108	Phase-field simulations of ferroelectric/ferroelastic polarization switching. *Acta Materialia*, **2004**, 52, 749-764	8.4	248
107	Effect of electrical boundary conditions on ferroelectric domain structures in thin films. *Applied Physics Letters*, **2002**, 81, 427-429	3.4	195
106	Temperature-strain phase diagram for BaTiO3 thin films. *Applied Physics Letters*, **2006**, 88, 072905	3.4	168
105	Phase transitions and domain structures in strained pseudocubic (100) SrTiO3 thin films. *Physical Review B*, **2006**, 73,	3.3	133
104	Phase-field simulation of polarization switching and domain evolution in ferroelectric polycrystals. *Acta Materialia*, **2005**, 53, 5313-5321	8.4	122
103	Ferroelectricity in ultrathin BaTiO3 films: probing the size effect by ultraviolet Raman spectroscopy. *Physical Review Letters*, **2009**, 103, 177601	7.4	110
102	Effect of grain orientation and grain size on ferroelectric domain switching and evolution: Phase field simulations. *Acta Materialia*, **2007**, 55, 1415-1426	8.4	110
101	Effect of substrate-induced strains on the spontaneous polarization of epitaxial BiFeO3 thin films. *Journal of Applied Physics*, **2007**, 101, 114105	2.5	105
100	c-axis oriented epitaxial BaTiO3 films on (001) Si. *Journal of Applied Physics*, **2006**, 100, 024108	2.5	97

99	Computer simulation of spinodal decomposition in constrained films. *Acta Materialia*, **2003**, 51, 5173-5185	8.4	89
98	Effect of solutes on dislocation motion: a phase-field simulation. *International Journal of Plasticity*, **2004**, 20, 403-425	7.6	86
97	Structural evidence for enhanced polarization in a commensurate short-period BaTiO3–SrTiO3 superlattice. *Applied Physics Letters*, **2006**, 89, 092905	3.4	78
96	Absence of low-temperature phase transitions in epitaxial BaTiO3 thin films. *Physical Review B*, **2004**, 69,	3.3	78
95	Ferroelectric domain morphologies of (001) PbZr1−xTixO3 epitaxial thin films. *Journal of Applied Physics*, **2005**, 97, 034112	2.5	77
94	Multiferroic domain dynamics in strained strontium titanate. *Physical Review Letters*, **2006**, 97, 257602	7.4	74
93	Phase-field model for epitaxial ferroelectric and magnetic nanocomposite thin films. *Applied Physics Letters*, **2007**, 90, 052909	3.4	74
92	A review: applications of the phase field method in predicting microstructure and property evolution of irradiated nuclear materials. *Npj Computational Materials*, **2017**, 3,	10.9	73
91	Stripe domain structure in epitaxial (001) BiFeO3 thin films on orthorhombic TbScO3 substrate. *Applied Physics Letters*, **2009**, 94, 251911	3.4	69
90	Prediction of ferroelectricity in BaTiO3–SrTiO3 superlattices with domains. *Applied Physics Letters*, **2007**, 91, 112914	3.4	66
89	Effect of interfacial dislocations on ferroelectric phase stability and domain morphology in a thin film: a phase-field model. *Journal of Applied Physics*, **2003**, 94, 2542-2547	2.5	65
88	Computer simulation of ferroelectric domain structures in epitaxial BiFeO3 thin films. *Journal of Applied Physics*, **2008**, 103, 094111	2.5	64
87	Equilibrium strain-energy analysis of coherently strained core–shell nanowires. *Journal of Crystal Growth*, **2008**, 310, 3084-3092	1.6	62
86	Thermodynamics and ferroelectric properties of KNbO3. *Journal of Applied Physics*, **2009**, 106, 104118	2.5	59
85	Work function of the mixed-valent manganese perovskites. *Journal of Applied Physics*, **2004**, 95, 7971-7975	2.5	59
84	Correlated polarization switching in the proximity of a 180° domain wall. *Physical Review B*, **2010**, 82,	3.3	58
83	Thermodynamics of nanodomain formation and breakdown in scanning probe microscopy: Landau-Ginzburg-Devonshire approach. *Physical Review B*, **2009**, 80,	3.3	56
82	Phase-field modeling of void migration and growth kinetics in materials under irradiation and temperature field. *Journal of Nuclear Materials*, **2010**, 407, 119-125	3.3	51

81	Surface effect on domain wall width in ferroelectrics. *Journal of Applied Physics*, **2009**, 106, 084102	2.5	50
80	Size-dependent polarization distribution in ferroelectric nanostructures: Phase field simulations. *Applied Physics Letters*, **2008**, 92, 162905	3.4	49
79	The effect of mechanical strains on the ferroelectric and dielectric properties of a model single crystal Phase field simulation. *Acta Materialia*, **2005**, 53, 2495-2507	8.4	48
78	Interfacial coherency and ferroelectricity of BaTiO3SrTiO3 superlattice films. *Applied Physics Letters*, **2007**, 91, 252904	3.4	45
77	Phase field simulations of ferroelectrics domain structures in PbZrxTi1xO3 bilayers. *Acta Materialia*, **2013**, 61, 2909-2918	8.4	44
76	Misfit strainisfit strain diagram of epitaxial BaTiO3 thin films: Thermodynamic calculations and phase-field simulations. *Applied Physics Letters*, **2008**, 93, 232904	3.4	44
75	The influence of 180ferroelectric domain wall width on the threshold field for wall motion. *Journal of Applied Physics*, **2008**, 104, 084107	2.5	44
74	Growth of nanoscale BaTiO3/SrTiO3 superlattices by molecular-beam epitaxy. *Journal of Materials Research*, **2008**, 23, 1417-1432	2.5	42
73	Strain effect on coercive field of epitaxial barium titanate thin films. *Applied Physics Letters*, **2008**, 92, 142907	3.4	42
72	Influence of interfacial dislocations on hysteresis loops of ferroelectric films. *Journal of Applied Physics*, **2008**, 104, 104110	2.5	38
71	Phase-field simulations of intragranular fission gas bubble evolution in UO2 under post-irradiation thermal annealing. *Nuclear Instruments & Methods in Physics Research B*, **2013**, 303, 62-67	1.2	37
70	Atomistic studies of nucleation of He clusters and bubbles in bcc iron. *Nuclear Instruments & Methods in Physics Research B*, **2013**, 303, 68-71	1.2	36
69	Calculation of internal stresses around Cu precipitates in the bcc Fe matrix by atomic simulation. *Modelling and Simulation in Materials Science and Engineering*, **1999**, 7, 641-655	2	36
68	Influence of anisotropic strain on the dielectric and ferroelectric properties of SrTiO3 thin films on DyScO3 substrates. *Physical Review B*, **2009**, 79,	3.3	34
67	Domain stability of PbTiO3 thin films under anisotropic misfit strains: Phase-field simulations. *Journal of Applied Physics*, **2008**, 104, 054105	2.5	34
66	A Phase Diagram for Epitaxial PbZr1xTixO3 Thin Films at the Bulk Morphotropic Boundary Composition. *Journal of the American Ceramic Society*, **2005**, 88, 1669-1672	3.8	33
65	A modified LandauDevonshire thermodynamic potential for strontium titanate. *Applied Physics Letters*, **2010**, 96, 232902	3.4	31
64	A thermodynamic free energy function for potassium niobate. *Applied Physics Letters*, **2009**, 94, 072904	3.4	30

63	Diffusion of small He clusters in bulk and grain boundaries in □Fe. *Journal of Nuclear Materials*, **2013**, 442, S667-S673	3.3	29
62	Piezoelectric response of single-crystal PbZr1□TixO3 near morphotropic phase boundary predicted by phase-field simulation. *Applied Physics Letters*, **2010**, 97, 252904	3.4	29
61	Cubic to tetragonal martensitic transformation in a thin film elastically constrained by a substrate. *Metals and Materials International*, **2003**, 9, 221-226	2.4	29
60	Phase-field model of pitting corrosion kinetics in metallic materials. *Npj Computational Materials*, **2018**, 4,	10.9	28
59	Quantification of internal electric fields and local polarization in ferroelectric superlattices. *ACS Nano*, **2011**, 5, 640-6	16.7	28
58	Effect of ferroelastic twin walls on local polarization switching: Phase-field modeling. *Applied Physics Letters*, **2008**, 93, 162901	3.4	28
57	Correlation between number of ferroelectric variants and coercive field of lead ziconate titanate single crystals. *Applied Physics Letters*, **2007**, 91, 032902	3.4	23
56	Piezoelectric anisotropy of a KNbO3 single crystal. *Journal of Applied Physics*, **2010**, 108, 094111	2.5	22
55	Computer simulations of interstitial loop growth kinetics in irradiated bcc Fe. *Journal of Nuclear Materials*, **2012**, 427, 259-267	3.3	21
54	Dipole spring ferroelectrics in superlattice SrTiO3/BaTiO3 thin films exhibiting constricted hysteresis loops. *Applied Physics Letters*, **2012**, 100, 092905	3.4	21
53	Three-dimensional phase-field simulation of domain structures in ferroelectric islands. *Applied Physics Letters*, **2008**, 92, 122906	3.4	21
52	Hot deformation characteristics of AZ80 magnesium alloy: Work hardening effect and processing parameter sensitivities. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 687, 113-122	5.3	20
51	Phase transitions and domain stabilities in biaxially strained (001) SrTiO3 epitaxial thin films. *Journal of Applied Physics*, **2010**, 108, 084113	2.5	20
50	Three-dimensional phase-field modeling of spinodal decomposition in constrained films. *Metals and Materials International*, **2003**, 9, 61-66	2.4	18
49	Mesoscale Phase-Field Modeling of Charge Transport in Nanocomposite Electrodes for Lithium-Ion Batteries. *Journal of Physical Chemistry C*, **2013**, 117, 28-40	3.8	17
48	Polarization rotation transitions in anisotropically strained SrTiO3 thin films. *Applied Physics Letters*, **2008**, 92, 192902	3.4	17
47	Dynamic drag of solute atmosphere on moving edge dislocationsPhase-field simulation. *Journal of Applied Physics*, **2004**, 96, 229-236	2.5	17
46	Coupled Lattice Polarization and Ferromagnetism in Multiferroic NiTiO Thin Films. *ACS Applied Materials & Interfaces*, **2017**, 9, 21879-21890	9.5	16

45	Calibrating multi-machine power system parameters with the extended Kalman filter **2011**,		16
44	Asymptotic description of the stress field around the bond edge of a cylindrical joint. *Archive of Applied Mechanics*, **1998**, 68, 552-565	2.2	16
43	Phase-field simulations of thickness-dependent domain stability in PbTiO3 thin films. *Acta Materialia*, **2012**, 60, 3296-3301	8.4	15
42	Non-classical nuclei and growth kinetics of Cr precipitates in FeCr alloys during ageing. *Modelling and Simulation in Materials Science and Engineering*, **2014**, 22, 025002	2	14
41	Investigation of magnetic signatures and microstructures for heat-treated ferritic/martensitic HT-9 alloy. *Acta Materialia*, **2013**, 61, 3285-3296	8.4	14
40	Influence of interfacial coherency on ferroelectric switching of superlattice BaTiO3/SrTiO3. *Applied Physics Letters*, **2015**, 107, 122906	3.4	11
39	Application of the phase-field method in predicting gas bubble microstructure evolution in nuclear fuels. *International Journal of Materials Research*, **2010**, 101, 515-522	0.5	11
38	Computational and experimental investigations of magnetic domain structures in patterned magnetic thin films. *Journal Physics D: Applied Physics*, **2015**, 48, 305001	3	10
37	Microstructure-based model of nonlinear ultrasonic response in materials with distributed defects. *Journal of Applied Physics*, **2019**, 125, 145108	2.5	9
36	Ab initio study of defect properties in YPO4. *Computational Materials Science*, **2012**, 54, 170-175	3.2	9
35	Evolution kinetics of interstitial loops in irradiated materials: a phase-field model. *Modelling and Simulation in Materials Science and Engineering*, **2012**, 20, 015011	2	9
34	. *IEEE Magnetics Letters*, **2013**, 4, 3500104-3500104	1.6	9
33	Predicting Thermal Conductivity Evolution of Polycrystalline Materials Under Irradiation Using Multiscale Approach. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 1060-1069	2.3	8
32	Phase-field modeling of void evolution and swelling in materials under irradiation. *Science China: Physics, Mechanics and Astronomy*, **2011**, 54, 856-865	3.6	8
31	Effects of unequally biaxial misfit strains on polarization phase diagrams in embedded ferroelectric thin layers: Phase field simulations. *Applied Physics Letters*, **2008**, 93, 132908	3.4	8
30	Piezoelectric enhancement of (PbTiO3)m/(BaTiO3)n ferroelectric superlattices through domain engineering. *Physical Review B*, **2014**, 90,	3.3	7
29	PMU placement for dynamic state tracking of power systems **2011**,		7
28	A quantitative phase-field model of gas bubble evolution in UO2. *Computational Materials Science*, **2020**, 184, 109867	3.2	6

27	Simulation of magnetic hysteresis loops and magnetic Barkhausen noise of Fe-ron containing nonmagnetic particles. *AIP Advances*, **2015**, 5, 077168	1.5	6
26	Morphology, orientation relationship, and stability analysis of Cu2O nanoclusters on SrTiO3 (100). *Applied Physics Letters*, **2009**, 95, 053111	3.4	6
25	Direct determination of the effect of strain on domain morphology in ferroelectric superlattices with scanning probe microscopy. *Journal of Applied Physics*, **2012**, 112, 052011	2.5	6
24	Stress Singularity Analysis of Axisymmetric Piezoelectric Bonded Structure. *JSME International Journal Series A-Solid Mechanics and Material Engineering*, **2002**, 45, 363-370		6
23	Effect of grain structure and strain rate on dynamic recrystallization and deformation behavior: A phase field-crystal plasticity model. *Computational Materials Science*, **2020**, 180, 109707	3.2	6
22	Pressure and electric field effects on piezoelectric responses of KNbO3. *Journal of Applied Physics*, **2012**, 112, 064106	2.5	5
21	The stable configurations of small vacancy clusters in. *Modelling and Simulation in Materials Science and Engineering*, **1996**, 4, 493-499	2	5
20	Effect of defects, magnetocrystalline anisotropy, and shape anisotropy on magnetic structure of iron thin films by magnetic force microscopy. *AIP Advances*, **2017**, 7, 056806	1.5	4
19	Thermal stresses in coated structures. *Surface and Coatings Technology*, **1998**, 99, 125-131	4.4	4
18	Interaction of crack-tip and notch-tip stress singularities for circular cylinder in torsion. *Theoretical and Applied Fracture Mechanics*, **1993**, 18, 259-272	3.7	4
17	Minimum tetragonality in PbTiO3/BaTiO3 ferroelectric superlattices. *Journal of Applied Physics*, **2013**, 114, 144103	2.5	3
16	Lattice misorientation evolution and grain refinement in Al-Si alloys under high-strain shear deformation. *Materialia*, **2021**, 18, 101146	3.2	3
15	A phase field study of the thermal migration of gas bubbles in UO2 nuclear fuel under temperature gradient. *Computational Materials Science*, **2020**, 183, 109817	3.2	2
14	Meso-scale magnetic signatures for nuclear reactor steel irradiation embrittlement monitoring **2015**,		2
13	Local sequential ensemble Kalman filter for simultaneously tracking states and parameters **2012**,		2
12	The stress intensity of crack-tip and notch-tip in cylinder under torsion. *International Journal of Engineering Science*, **1995**, 33, 447-455	5.7	2
11	Dynamic Paradigm for Future Power Grid Operation. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 218-223		1
10	Microstructure-Dependent Rate Theory Model of Radiation-Induced Segregation in Binary Alloys. *Frontiers in Materials*, **2021**, 8,	4	1

9	Extended Shear Deformation of the Immiscible Cu-Nb Alloy Resulting in Nanostructuring and Oxygen Ingress with Enhancement in Mechanical Properties.. *ACS Omega*, **2022**, 7, 13721-13736	3.9	1
8	Effect of loading path on grain misorientation and geometrically necessary dislocation density in polycrystalline aluminum under reciprocating shear. *Computational Materials Science*, **2022**, 205, 111221	3.2	0
7	Leaching model of radionuclides in metal-organic framework particles. *Computational Materials Science*, **2022**, 201, 110886	3.2	0
6	Magnetization Reversal Process of Single Crystal □Fe Containing a Nonmagnetic Particle. *Chinese Physics Letters*, **2015**, 32, 067502	1.8	
5	Domain Structures and Phase Diagram in 2D Ferroelectrics Under Applied Biaxial Strains - Phase Field Simulations and Thermodynamic Calculations. *Materials Research Society Symposia Proceedings*, **2005**, 881, 1		
4	Torsion of composite cylinder containing crack terminating at bimaterial interface. *International Journal of Fracture*, **1993**, 63, 11-20	2.3	
3	Mesoscale Phase Field Modeling of Glass Strengthening Under Triaxial Compression. *International Journal of Applied Glass Science*, **2016**, 7, 384-393	1.8	
2	Nanomechanics of Ferroelectric Thin Films and Heterostructures. *Springer Series in Materials Science*, **2016**, 469-488	0.9	
1	Microstructure-dependent rate theory model of defect segregation and phase stability in irradiated polycrystalline LiAlO2. *Modelling and Simulation in Materials Science and Engineering*, **2022**, 30, 025005	2	