

# Yijia Gu

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

328  
papers

17,934  
citations

61  
h-index

125  
g-index

343  
ext. papers

21,799  
ext. citations

10.3  
avg, IF

7.12  
L-index

#	Paper	IF	Citations
328	Stability and low-energy orientations of interphase boundaries in multiaxial ferroelectrics: Phase-field simulations. <i>Physical Review B</i> , <b>2022</b> , 105,	3.3	1
327	Phase-Field Simulations of Tunable Polar Topologies in Lead-Free Ferroelectric/Paraelectric Multilayers with Ultrahigh Energy Storage Performance.. <i>Advanced Materials</i> , <b>2022</b> , e2108772	24	6
326	Liberating a hidden antiferroelectric phase with interfacial electrostatic engineering.. <i>Science Advances</i> , <b>2022</b> , 8, eabg5860	14.3	3
325	Q-POP-Thermo: A general-purpose thermodynamics solver for ferroelectric materials. <i>Computer Physics Communications</i> , <b>2022</b> , 108302	4.2	1
324	A Phase-Field Study on Internal to External Oxidation Transition in High-Temperature Structural Alloys. <i>Jom</i> , <b>2022</b> , 74, 1435-1443	2.1	1
323	Flexoelectric Domain Walls Originated from Structural Phase Transition in Epitaxial BiVO Films.. <i>Small</i> , <b>2022</b> , e2107540	11	0
322	Optimizing Piezoelectric Nanocomposites by High-Throughput Phase-Field Simulation and Machine Learning.. <i>Advanced Science</i> , <b>2022</b> , e2105550	13.6	7
321	The role of lattice dynamics in ferroelectric switching.. <i>Nature Communications</i> , <b>2022</b> , 13, 1110	17.4	6
320	Ferroelectric crystals with giant electro-optic property enabling ultracompact Q-switches.. <i>Science</i> , <b>2022</b> , 376, 371-377	33.3	7
319	Tunable Nanoscale Evolution and Topological Phase Transitions of a Polar Vortex Supercrystal.. <i>Advanced Materials</i> , <b>2021</b> , e2106401	24	1
318	Low-voltage magnetoelectric coupling in membrane heterostructures. <i>Science Advances</i> , <b>2021</b> , 7, eabh2224	14.5	6
317	Atomic-scale observation of non-classical nucleation-mediated phase transformation in a titanium alloy. <i>Nature Materials</i> , <b>2021</b> ,	27	5
316	Inverse Domain-Size Dependence of Piezoelectricity in Ferroelectric Crystals. <i>Advanced Materials</i> , <b>2021</b> , e2105071	24	6
315	Nanotextured Dynamics of a Light-Induced Phase Transition in VO. <i>Nano Letters</i> , <b>2021</b> , 21, 9052-9060	11.5	3
314	Toroidal polar topology in strained ferroelectric polymer. <i>Science</i> , <b>2021</b> , 371, 1050-1056	33.3	24
313	Vortex Domain Walls in Ferroelectrics. <i>Nano Letters</i> , <b>2021</b> , 21, 3533-3539	11.5	9
312	Polymer Dielectrics with Simultaneous Ultrahigh Energy Density and Low Loss. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008198	24	33

311	Domain patterns and super-elasticity of freestanding BiFeO <sub>3</sub> membranes via phase-field simulations. <i>Acta Materialia</i> , <b>2021</b> , 208, 116689	8.4	5
310	Subterahertz collective dynamics of polar vortices. <i>Nature</i> , <b>2021</b> , 592, 376-380	50.4	15
309	Evolution of topological defects at two sequential phase transitions of Nd <sub>2</sub> SrFe <sub>2</sub> O <sub>7</sub> . <i>Physical Review Research</i> , <b>2021</b> , 3,	3.9	2
308	Ultrahigh specific strength in a magnesium alloy strengthened by spinodal decomposition. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	49
307	Universal phase dynamics in VO switches revealed by ultrafast operando diffraction. <i>Science</i> , <b>2021</b> , 373, 352-355	33.3	18
306	Precipitation Hardening in Ferroelectric Ceramics. <i>Advanced Materials</i> , <b>2021</b> , 33, e2102421	24	9
305	Ferroelastic Nanodomain-mediated Mechanical Switching of Ferroelectricity in Thick Epitaxial Films. <i>Nano Letters</i> , <b>2021</b> , 21, 445-452	11.5	2
304	Superhierarchical Inorganic/Organic Nanocomposites Exhibiting Simultaneous Ultrahigh Dielectric Energy Density and High Efficiency. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2007994	15.6	21
303	Ultrasensitive magnetostrictive responses at the pre-transitional rhombohedral side of ferromagnetic morphotropic phase boundary. <i>Journal of Materials Science</i> , <b>2021</b> , 56, 1713-1729	4.3	4
302	Strain-Induced Interlayer Parallel-to-Antiparallel Magnetic Transitions of Twisted Bilayers. <i>Advanced Theory and Simulations</i> , <b>2021</b> , 4, 2000215	3.5	1
301	Quasi-one-dimensional metallic conduction channels in exotic ferroelectric topological defects. <i>Nature Communications</i> , <b>2021</b> , 12, 1306	17.4	12
300	Epitaxial Ferroelectric Hf Zr O with Metallic Pyrochlore Oxide Electrodes. <i>Advanced Materials</i> , <b>2021</b> , 33, e2006089	24	12
299	Layered Nanosheets: Superhierarchical Inorganic/Organic Nanocomposites Exhibiting Simultaneous Ultrahigh Dielectric Energy Density and High Efficiency (Adv. Funct. Mater. 8/2021). <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2170050	15.6	1
298	Designing polymer nanocomposites with high energy density using machine learning. <i>Npj Computational Materials</i> , <b>2021</b> , 7,	10.9	9
297	Hydrogel Ionic Diodes toward Harvesting Ultralow-Frequency Mechanical Energy. <i>Advanced Materials</i> , <b>2021</b> , 33, e2103056	24	13
296	Giant room temperature elastocaloric effect in metal-free thin-film perovskites. <i>Npj Computational Materials</i> , <b>2021</b> , 7,	10.9	2
295	Room-temperature ultrasensitive magnetoelastic responses near the magnetic-ordering tricritical region. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 063901	2.5	0
294	Dynamics of voltage-driven oscillating insulator-metal transitions. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	2

293	Inherent stochasticity during insulator-metal transition in VO. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	3
292	Boundary conditions manipulation of polar vortex domains in BiFeO <sub>3</sub> membranes via phase-field simulations. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 495301	3	1
291	Ultrahigh energy storage in superparaelectric relaxor ferroelectrics. <i>Science</i> , <b>2021</b> , 374, 100-104	33.3	49
290	On the phase-field modeling of rapid solidification. <i>Computational Materials Science</i> , <b>2021</b> , 199, 110812	3.2	1
289	Improper molecular ferroelectrics with simultaneous ultrahigh pyroelectricity and figures of merit. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	13
288	Microstructural impacts on ionic conductivity of oxide solid electrolytes from a combined atomistic-mesoscale approach. <i>Npj Computational Materials</i> , <b>2021</b> , 7,	10.9	4
287	High-entropy polymer produces a giant electrocaloric effect at low fields.. <i>Nature</i> , <b>2021</b> , 600, 664-669	50.4	17
286	Flexoelectric control of physical properties by atomic force microscopy. <i>Applied Physics Reviews</i> , <b>2021</b> , 8, 041327	17.3	7
285	Temperature dependence of three-dimensional domain wall arrangement in ferroelectric K <sub>0.9</sub> Na <sub>0.1</sub> NbO <sub>3</sub> epitaxial thin films. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 184101	2.5	6
284	Spinodal electronic phase separation during insulator-metal transitions. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	4
283	Structural Insight in the Interfacial Effect in Ferroelectric Polymer Nanocomposites. <i>Advanced Materials</i> , <b>2020</b> , 32, e2005431	24	36
282	Mechanically induced ferroelectric switching in BaTiO <sub>3</sub> thin films. <i>Acta Materialia</i> , <b>2020</b> , 193, 151-162	8.4	12
281	Hybrid Magnetic Micropillar Arrays for Programmable Actuation. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001879	24	34
280	Spontaneous ferroelectric order in lead-free relaxor Na <sub>1/2</sub> Bi <sub>1/2</sub> TiO <sub>3</sub> -based composites. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	10
279	Colossal flexoresistance in dielectrics. <i>Nature Communications</i> , <b>2020</b> , 11, 2586	17.4	10
278	An All-Scale Hierarchical Architecture Induces Colossal Room-Temperature Electrocaloric Effect at Ultralow Electric Field in Polymer Nanocomposites. <i>Advanced Materials</i> , <b>2020</b> , 32, e1907927	24	16
277	Observation of Unconventional Dynamics of Domain Walls in Uniaxial Ferroelectric Lead Germanate. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2000284	15.6	9
276	Domain Dynamics under Ultrafast Electric-Field Pulses. <i>Physical Review Letters</i> , <b>2020</b> , 124, 107601	7.4	16

275	A thermodynamic study of phase transitions and electrocaloric properties of $K_{0.5}Na_{0.5}NbO_3$ single crystals. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 092902	3.4	5
274	Phase-field study of the effects of the multi-controlling parameters on columnar dendrite during directional solidification in hexagonal materials. <i>European Physical Journal E</i> , <b>2020</b> , 43, 41	1.5	2
273	Constructing Polymorphic Nanodomains in $BaTiO_3$ Films via Epitaxial Symmetry Engineering. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1910569	15.6	14
272	Transparent ferroelectric crystals with ultrahigh piezoelectricity. <i>Nature</i> , <b>2020</b> , 577, 350-354	50.4	181
271	Unexpected Giant Microwave Conductivity in a Nominally Silent $BiFeO_3$ Domain Wall. <i>Advanced Materials</i> , <b>2020</b> , 32, e1905132	24	11
270	Alveolus-Inspired Active Membrane Sensors for Self-Powered Wearable Chemical Sensing and Breath Analysis. <i>ACS Nano</i> , <b>2020</b> , 14, 6067-6075	16.7	167
269	Strain Control of Domain Structures in Ferroelectric Thin Films: Applications of Phase-Field Method <b>2020</b> , 1213-1230		0
268	Three-dimensional pseudopotential lattice Boltzmann model for multiphase flows at high density ratio. <i>Physical Review E</i> , <b>2020</b> , 102, 053308	2.4	4
267	High-throughput phase-field simulations and machine learning of resistive switching in resistive random-access memory. <i>Npj Computational Materials</i> , <b>2020</b> , 6,	10.9	4
266	Presence of a purely tetragonal phase in ultrathin $BiFeO_3$ films: Thermodynamics and phase-field simulations. <i>Acta Materialia</i> , <b>2020</b> , 183, 110-117	8.4	8
265	Extraordinarily Large Electrocaloric Strength of Metal-Free Perovskites. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906224	24	29
264	Phase-field simulation of two-dimensional topological charges in nematic liquid crystals. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 124701	2.5	0
263	Giant tuning of ferroelectricity in single crystals by thickness engineering. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	19
262	Giant piezoelectricity in oxide thin films with nanopillar structure. <i>Science</i> , <b>2020</b> , 369, 292-297	33.3	34
261	Uncertainty quantification and reduction in metal additive manufacturing. <i>Npj Computational Materials</i> , <b>2020</b> , 6,	10.9	10
260	Phase-field model of deformation twin-grain boundary interactions in hexagonal systems. <i>Acta Materialia</i> , <b>2020</b> , 200, 821-834	8.4	4
259	Controlled Nucleation and Stabilization of Ferroelectric Domain Wall Patterns in Epitaxial (110) Bismuth Ferrite Heterostructures. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003571	15.6	5
258	Tunable Non-Volatile Memory by Conductive Ferroelectric Domain Walls in Lithium Niobate Thin Films. <i>Crystals</i> , <b>2020</b> , 10, 804	2.3	9

257	Phase transition enhanced superior elasticity in freestanding single-crystalline multiferroic BiFeO membranes. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	25
256	Electrical Tunability of Domain Wall Conductivity in LiNbO Thin Films. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902890	24.9	38
255	Super-elastic ferroelectric single-crystal membrane with continuous electric dipole rotation. <i>Science</i> , <b>2019</b> , 366, 475-479	33.3	127
254	Ferroelectric domain structures and temperature-misfit strain phase diagrams of K <sub>1-x</sub> Na <sub>x</sub> NbO <sub>3</sub> thin films: A phase-field study. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 092902	3.4	14
253	Mechanical-force-induced non-local collective ferroelastic switching in epitaxial lead-titanate thin films. <i>Nature Communications</i> , <b>2019</b> , 10, 3951	17.4	25
252	Observation of Strong Polarization Enhancement in Ferroelectric Tunnel Junctions. <i>Nano Letters</i> , <b>2019</b> , 19, 6812-6818	11.5	12
251	Enhanced flexoelectricity at reduced dimensions revealed by mechanically tunable quantum tunnelling. <i>Nature Communications</i> , <b>2019</b> , 10, 537	17.4	34
250	Ultrathin, flexible, solid polymer composite electrolyte enabled with aligned nanoporous host for lithium batteries. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 705-711	28.7	442
249	Interaction Dynamics Between Ferroelectric and Antiferroelectric Domains in a PbZrO <sub>3</sub> -Based Ceramic. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	12
248	Uncertainty Quantification in Metallic Additive Manufacturing Through Physics-Informed Data-Driven Modeling. <i>Jom</i> , <b>2019</b> , 71, 2625-2634	2.1	21
247	Flexoelectricity in solids: Progress, challenges, and perspectives. <i>Progress in Materials Science</i> , <b>2019</b> , 106, 100570	42.2	123
246	Phase-field modeling and machine learning of electric-thermal-mechanical breakdown of polymer-based dielectrics. <i>Nature Communications</i> , <b>2019</b> , 10, 1843	17.4	97
245	Perspective: voltage control of magnetization in multiferroic heterostructures. <i>National Science Review</i> , <b>2019</b> , 6, 621-624	10.8	11
244	Electrokinetic Phenomena Enhanced Lithium-Ion Transport in Leaky Film for Stable Lithium Metal Anodes. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1900704	21.8	51
243	Electrical polarization induced by atomically engineered compositional gradient in complex oxide solid solution. <i>NPG Asia Materials</i> , <b>2019</b> , 11,	10.3	4
242	Strain Engineering in Functional Materials. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 082201	2.5	4
241	Conformational Domain Wall Switch. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1807523	15.6	32
240	Understanding, Predicting, and Designing Ferroelectric Domain Structures and Switching Guided by the Phase-Field Method. <i>Annual Review of Materials Research</i> , <b>2019</b> , 49, 127-152	12.8	60

239	New frontiers for the materials genome initiative. <i>Npj Computational Materials</i> , <b>2019</b> , 5,	10.9	171
238	Scalable Polymer Nanocomposites with Record High-Temperature Capacitive Performance Enabled by Rationally Designed Nanostructured Inorganic Fillers. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900875	24	120
237	Direct observation of weakened interface clamping effect enabled ferroelastic domain switching. <i>Acta Materialia</i> , <b>2019</b> , 171, 184-189	8.4	8
236	Multiscale crystal-plasticity phase field and extended finite element methods for fatigue crack initiation and propagation modeling. <i>International Journal of Fracture</i> , <b>2019</b> , 216, 41-57	2.3	6
235	Computational modeling of grain boundary electrostatic effect in polycrystalline SrTiO <sub>3</sub> thin film. <i>Journal of the American Ceramic Society</i> , <b>2019</b> , 102, 4136-4151	3.8	3
234	A thermodynamically consistent phase-field model for viscous sintering. <i>Journal of the American Ceramic Society</i> , <b>2019</b> , 102, 674-685	3.8	5
233	In situ Electric Field Manipulation of Ferroelectric Vortices. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 1844-1845	1.8	1
232	Ultrahigh-energy density lead-free dielectric films via polymorphic nanodomain design. <i>Science</i> , <b>2019</b> , 365, 578-582	33.3	353
231	Periodicity-Doubling Cascades: Direct Observation in Ferroelastic Materials. <i>Physical Review Letters</i> , <b>2019</b> , 123, 087603	7.4	20
230	Interfacial Electronic Properties Dictate Li Dendrite Growth in Solid Electrolytes. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 7351-7359	9.6	80
229	Emergence of the Vortex State in Confined Ferroelectric Heterostructures. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901014	24	17
228	Deterministic Ferroelastic Domain Switching Using Ferroelectric Bilayers. <i>Nano Letters</i> , <b>2019</b> , 19, 5319-5326	5.2	9
227	Revealing ferroelectric switching character using deep recurrent neural networks. <i>Nature Communications</i> , <b>2019</b> , 10, 4809	17.4	21
226	Ferroelectric Domain Walls in PbTiO <sub>3</sub> Are Effective Regulators of Heat Flow at Room Temperature. <i>Nano Letters</i> , <b>2019</b> , 19, 7901-7907	11.5	23
225	Phase field simulation of grain size effects on the phase coexistence and magnetostrictive behavior near the ferromagnetic morphotropic phase boundary. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 162402	3.4	5
224	Giant piezoelectricity of Sm-doped Pb(MgNb)O-PbTiO <sub>3</sub> single crystals. <i>Science</i> , <b>2019</b> , 364, 264-268	33.3	242
223	Anisotropic superconductivity induced by periodic multiferroic domain patterns. <i>NPG Asia Materials</i> , <b>2019</b> , 11,	10.3	3
222	A Strain-Mediated Magnetoelectric-Spin-Torque Hybrid Structure. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1806371	15.6	19

221	Conductivity of iron-doped strontium titanate in the quenched and degraded states. <i>Journal of the American Ceramic Society</i> , <b>2019</b> , 102, 3567-3577	3.8	10
220	A roadmap for electronic grade 2D materials. <i>2D Materials</i> , <b>2019</b> , 6, 022001	5.9	133
219	Spatially resolved steady-state negative capacitance. <i>Nature</i> , <b>2019</b> , 565, 468-471	50.4	144
218	Light-Activated Gigahertz Ferroelectric Domain Dynamics. <i>Physical Review Letters</i> , <b>2018</b> , 120, 096101	7.4	26
217	Strain, temperature, and electric-field effects on the phase transition and piezoelectric responses of K <sub>0.5</sub> Na <sub>0.5</sub> NbO <sub>3</sub> thin films. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 154106	2.5	19
216	Phase-Field Model of Electrothermal Breakdown in Flexible High-Temperature Nanocomposites under Extreme Conditions. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800509	21.8	56
215	First-principles calculations of lattice dynamics and thermodynamic properties for Yb <sub>14</sub> MnSb <sub>11</sub> . <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 045102	2.5	8
214	Configurable topological textures in strain graded ferroelectric nanoplates. <i>Nature Communications</i> , <b>2018</b> , 9, 403	17.4	60
213	Role of Reversible Phase Transformation for Strong Piezoelectric Performance at the Morphotropic Phase Boundary. <i>Physical Review Letters</i> , <b>2018</b> , 120, 055501	7.4	47
212	Topological dynamics of vortex-line networks in hexagonal manganites. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	8
211	Strain effects on domain structures in ferroelectric thin films from phase-field simulations. <i>Journal of the American Ceramic Society</i> , <b>2018</b> , 101, 4783-4790	3.8	6
210	Defect-Induced Hedgehog Polarization States in Multiferroics. <i>Physical Review Letters</i> , <b>2018</b> , 120, 137602	7.4	34
209	Active cell-matrix coupling regulates cellular force landscapes of cohesive epithelial monolayers. <i>Npj Computational Materials</i> , <b>2018</b> , 4,	10.9	8
208	Numerical Simulation of Phase Transitions in Type-II Annular Superconductor Using Time-dependent Ginzburg-Landau Equations. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>2018</b> , 31, 3445-3451	1.5	4
207	Selective control of multiple ferroelectric switching pathways using a trailing flexoelectric field. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 366-370	28.7	77
206	Size effects of electrocaloric cooling in ferroelectric nanowires. <i>Journal of the American Ceramic Society</i> , <b>2018</b> , 101, 1566-1575	3.8	26
205	Operando and three-dimensional visualization of anion depletion and lithium growth by stimulated Raman scattering microscopy. <i>Nature Communications</i> , <b>2018</b> , 9, 2942	17.4	94
204	Control of Domain Structures in Multiferroic Thin Films through Defect Engineering. <i>Advanced Materials</i> , <b>2018</b> , 30, e1802737	24	21



203	Controllable conductive readout in self-assembled, topologically confined ferroelectric domain walls. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 947-952	28.7	104
202	Electric Field Writing of Ferroelectric Nano-Domains Near 71° Domain Walls with Switchable Interfacial Conductivity. <i>Annalen Der Physik</i> , <b>2018</b> , 530, 1800130	2.6	5
201	Discovering minimum energy pathways via distortion symmetry groups. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	11
200	Hierarchical Domain Structure and Extremely Large Wall Current in Epitaxial BiFeO3 Thin Films. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1801725	15.6	23
199	Linearly aligned single-chiral vortices in hexagonal manganites by insitu electric arc heating. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	3
198	Ferroelastically protected polarization switching pathways to control electrical conductivity in strain-graded ferroelectric nanoplates. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	10
197	Synergy between phase transformation and domain switching in two morphotropic phase boundary ferroelectrics. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	5
196	Tunneling Hot Spots in Ferroelectric SrTiO. <i>Nano Letters</i> , <b>2018</b> , 18, 491-497	11.5	23
195	High-Throughput Phase-Field Design of High-Energy-Density Polymer Nanocomposites. <i>Advanced Materials</i> , <b>2018</b> , 30, 1704380	24	171
194	Defect-assisted Reorganization of Ferroelectric Domain Walls Revealed by Aberration-corrected Electron Microscopy. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 104-105	0.5	
193	Stable metal battery anodes enabled by polyethylenimine sponge hosts by way of electrokinetic effects. <i>Nature Energy</i> , <b>2018</b> , 3, 1076-1083	62.3	212
192	Strain-mediated voltage-controlled switching of magnetic skyrmions in nanostructures. <i>Npj Computational Materials</i> , <b>2018</b> , 4,	10.9	29
191	Understanding and predicting geometrical constraint ferroelectric charged domain walls in a BiFeO3 island via phase-field simulations. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 222902	3.4	13
190	Strain Control of Domain Structures in Ferroelectric Thin Films: Applications of Phase-Field Method <b>2018</b> , 1-18		
189	Anisotropic polarization-induced conductance at a ferroelectric-insulator interface. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 1132-1136	28.7	37
188	Switching the chirality of a magnetic vortex deterministically with an electric field. <i>Materials Research Letters</i> , <b>2018</b> , 6, 669-675	7.4	9
187	A Bottom-Up Formation Mechanism of Solid Electrolyte Interphase Revealed by Isotope-Assisted Time-of-Flight Secondary Ion Mass Spectrometry. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 5508-5514	6.4	19
186	Multiscale framework for simulation-guided growth of 2D materials. <i>Npj 2D Materials and Applications</i> , <b>2018</b> , 2,	8.8	20

185	Water printing of ferroelectric polarization. <i>Nature Communications</i> , <b>2018</b> , 9, 3809	17.4	44
184	Phase Coexistence of Ferroelectric Vortices and Classical $a_1/a_2$ Domains in $\text{PbTiO}_3/\text{SrTiO}_3$ Superlattices.. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 1638-1639	0.5	1
183	Control of Epitaxial $\text{BaFeAs}$ Atomic Configurations with Substrate Surface Terminations. <i>Nano Letters</i> , <b>2018</b> , 18, 6347-6352	11.5	11
182	Atomic-scale mechanism of internal structural relaxation screening at polar interfaces. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	3
181	Bioinspired elastic piezoelectric composites for high-performance mechanical energy harvesting. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 14546-14552	13	65
180	Facilitation of Ferroelectric Switching via Mechanical Manipulation of Hierarchical Nanoscale Domain Structures. <i>Physical Review Letters</i> , <b>2017</b> , 118, 017601	7.4	31
179	Stability of Polar Vortex Lattice in Ferroelectric Superlattices. <i>Nano Letters</i> , <b>2017</b> , 17, 2246-2252	11.5	85
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