Alexei Gruverman

List of Publications by Year
in descending order

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260	21,341	9756	10424
papers	citations	73 h-index	139 g-index

269	269	269	18355
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Giant switchable photovoltaic effect in organometal trihalide perovskite devices. Nature Materials, 2015, 14, 193-198.	13.3	1,372
2	Grain boundary dominated ion migration in polycrystalline organicâ€“inorganic halide perovskite films. Energy and Environmental Science, 2016, 9, 1752-1759.	15.6	917
3	Mechanical Writing of Ferroelectric Polarization. Science, 2012, 336, 59-61.	6.0	645
4	Elastic properties of 2D Ti ₃ C ₂ T _x MXene monolayers and bilayers. Science Advances, 2018, 4, eaat0491.	4.7	637
5	Monolithic integration of hybrid perovskite single crystals with heterogenous substrate for highly sensitive X-ray imaging. Nature Photonics, 2017, 11, 315-321.	15.6	580
6	Tunneling Electroresistance Effect in Ferroelectric Tunnel Junctions at the Nanoscale. Nano Letters, 2009, 9, 3539-3543.	4.5	536
7	Thin Insulating Tunneling Contacts for Efficient and Waterâ€Resistant Perovskite Solar Cells. Advanced Materials, 2016, 28, 6734-6739.	11.1	533
8	Efficiency enhancement in organic solar cells with ferroelectric polymers. Nature Materials, 2011, 10, 296-302.	13.3	482
9	IMAGING AND CONTROL OF DOMAIN STRUCTURES IN FERROELECTRIC THIN FILMS VIA SCANNING FORCE MICROSCOPY. Annual Review of Materials Research, 1998, 28, 101-123.	5.5	462
10	Nanoscale ferroelectrics: processing, characterization and future trends. Reports on Progress in Physics, 2006, 69, 2443-2474.	8.1	415
11	Molecular doping enabled scalable blading of efficient hole-transport-layer-free perovskite solar cells. Nature Communications, 2018, 9, 1625.	5.8	314
12	Electricâ€Fieldâ€Driven Reversible Conversion Between Methylammonium Lead Triiodide Perovskites and Lead Iodide at Elevated Temperatures. Advanced Energy Materials, 2016, 6, 1501803.	10.2	287
13	Ferroelectric Tunnel Memristor. Nano Letters, 2012, 12, 5697-5702.	4.5	285
14	Piezoresponse force microscopy and recent advances in nanoscale studies of ferroelectrics. Journal of Materials Science, 2006, 41, 107-116.	1.7	283
15	Enhanced tunnelling electroresistance effect due to a ferroelectrically induced phase transition at a magnetic complex oxide interface. Nature Materials, 2013, 12, 397-402.	13.3	283
16	Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.	6.0	259
17	CH ₃ NH ₃ PbI ₃ perovskites: Ferroelasticity revealed. Science Advances, 2017, 3, e1602165.	4.7	257
18	Piezoresponse force microscopy and nanoferroic phenomena. Nature Communications, 2019, 10, 1661.	5.8	252

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19	Efficient Semitransparent Perovskite Solar Cells for 23.0%â€Efficiency Perovskite/Silicon Fourâ€Terminal Tandem Cells. Advanced Energy Materials, 2016, 6, 1601128.	10.2	240
20	Nanoscale investigation of fatigue effects in Pb(Zr,Ti)O3 films. Applied Physics Letters, 1996, 69, 3191-3193.	1.5	239
21	Is Cu a stable electrode material in hybrid perovskite solar cells for a 30-year lifetime?. Energy and Environmental Science, 2016, 9, 3650-3656.	15.6	239
22	Nanoscale Visualization and Control of Ferroelectric Domains by Atomic Force Microscopy. Physical Review Letters, 1995, 74, 4309-4312.	2.9	233
23	Vector Piezoresponse Force Microscopy. Microscopy and Microanalysis, 2006, 12, 206-220.	0.2	228
24	Mechanical stress effect on imprint behavior of integrated ferroelectric capacitors. Applied Physics Letters, 2003, 83, 728-730.	1.5	221
25	Direct studies of domain switching dynamics in thin film ferroelectric capacitors. Applied Physics Letters, 2005, 87, 082902.	1.5	210
26	Scanning force microscopy for the study of domain structure in ferroelectric thin films. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 602.	1.6	207
27	Nanoscale imaging of domain dynamics and retention in ferroelectric thin films. Applied Physics Letters, 1997, 71, 3492-3494.	1.5	204
28	Domain growth kinetics in lithium niobate single crystals studied by piezoresponse force microscopy. Applied Physics Letters, 2005, 86, 012906.	1.5	196
29	Optoelectrical Molybdenum Disulfide (MoS₂)â€"Ferroelectric Memories. ACS Nano, 2015, 9, 8089-8098.	7.3	193
30	Artificial Optoelectronic Synapses Based on Ferroelectric Field-Effect Enabled 2D Transition Metal Dichalcogenide Memristive Transistors. ACS Nano, 2020, 14, 746-754.	7.3	190
31	Piezoresponse Force Microscopy: A Window into Electromechanical Behavior at the Nanoscale. MRS Bulletin, 2009, 34, 648-657.	1.7	186
32	Ultrathin Hf_{0.5}Zr_{0.5}O₂ Ferroelectric Films on Si. ACS Applied Materials & Interfaces, 2016, 8, 7232-7237.	4.0	186
33	Ferroelectric and multiferroic tunnel junctions. MRS Bulletin, 2012, 37, 138-143.	1.7	182
34	Piezoresponse Force Microscopy Studies of Switching Behavior of Ferroelectric Capacitors on a 100-ns Time Scale. Physical Review Letters, 2008, 100, 097601.	2.9	179
35	Switchable Induced Polarization in LaAlO₃/SrTiO₃ Heterostructures. Nano Letters, 2012, 12, 1765-1771.	4.5	167
36	Anomalous photovoltaic effect in organic-inorganic hybrid perovskite solar cells. Science Advances, 2017, 3, e1602164.	4.7	165

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37	Asymmetric nanoscale switching in ferroelectric thin films by scanning force microscopy. Applied Physics Letters, 2001, 78, 2751-2753.	1.5	161
38	Vortex ferroelectric domains. Journal of Physics Condensed Matter, 2008, 20, 342201.	0.7	155
39	Mesoscale flux-closure domain formation in single-crystal BaTiO3. Nature Communications, 2011, 2, 404.	5.8	153
40	Large electrostrictive response in lead halide perovskites. Nature Materials, 2018, 17, 1020-1026.	13.3	137
41	Electrical and Elastic Properties of Individual Singleâ€Layer Nb₄C₃T_x MXene Flakes. Advanced Electronic Materials, 2020, 6, 1901382.	2.6	134
42	Tuning the Energy Level Offset between Donor and Acceptor with Ferroelectric Dipole Layers for Increased Efficiency in Bilayer Organic Photovoltaic Cells. Advanced Materials, 2012, 24, 1455-1460.	11.1	127
43	Integration of perovskite and polymer photoactive layers to produce ultrafast response, ultraviolet-to-near-infrared, sensitive photodetectors. Materials Horizons, 2017, 4, 242-248.	6.4	127
44	Coercive fields in ferroelectrics: A case study in lithium niobate and lithium tantalate. Applied Physics Letters, 2002, 80, 2740-2742.	1.5	122
45	Scanning force microscopy of domain structure in ferroelectric thin films: imaging and control. Nanotechnology, 1997, 8, A38-A43.	1.3	121
46	Optical control of polarization in ferroelectric heterostructures. Nature Communications, 2018, 9, 3344.	5.8	119
47	Electric modulation of magnetization at the BaTiO3/La0.67Sr0.33MnO3 interfaces. Applied Physics Letters, 2012, 100, .	1.5	118
48	Enhancement of Ferroelectric Polarization Stability by Interface Engineering. Advanced Materials, 2012, 24, 1209-1216.	11.1	118
49	Polarization-dependent electron affinity of LiNbO3 surfaces. Applied Physics Letters, 2004, 85, 2316-2318.	1.5	114
50	High-Resolution Studies of Domain Switching Behavior in Nanostructured Ferroelectric Polymers. Nano Letters, 2011, 11, 1970-1975.	4.5	112
51	Switching properties of self-assembled ferroelectric memory cells. Applied Physics Letters, 1999, 75, 1158-1160.	1.5	111
52	Nanoscale Bubble Domains and Topological Transitions in Ultrathin Ferroelectric Films. Advanced Materials, 2017, 29, 1702375.	11.1	110
53	Control of Synaptic Plasticity Learning of Ferroelectric Tunnel Memristor by Nanoscale Interface Engineering. ACS Applied Materials & Interfaces, 2018, 10, 12862-12869.	4.0	109
54	Polarization retention in SrBi[sub 2]Ta[sub 2]O[sub 9] thin films investigated at nanoscale. Journal of Applied Physics, 2001, 89, 1836.	1.1	107

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55	Ferroelectric tunnel junctions with graphene electrodes. Nature Communications, 2014, 5, 5518.	5.8	107
56	Beyond the barrier. Nature Materials, 2013, 12, 602-604.	13.3	106
57	Fabrication of metallic nanowires on a ferroelectric template via photochemical reaction. Nanotechnology, 2006, 17, 4946-4949.	1.3	96
58	Tunnel electroresistance in junctions with ultrathin ferroelectric Pb(Zr0.2Ti0.8)O3 barriers. Applied Physics Letters, 2012, 100, .	1.5	96
59	Electromechanical imaging of biological systems with sub-10nm resolution. Applied Physics Letters, 2005, 87, 053901.	1.5	93
60	Negative capacitance detected. Nature Materials, 2015, 14, 137-139.	13.3	93
61	Nanoscale observation of photoinduced domain pinning and investigation of imprint behavior in ferroelectric thin films. Journal of Applied Physics, 2002, 92, 2734-2739.	1.1	88
62	Three-dimensional high-resolution reconstruction of polarization in ferroelectric capacitors by piezoresponse force microscopy. Journal of Applied Physics, 2004, 95, 1958-1962.	1.1	87
63	Dynamics of ferroelectric domain growth in the field of atomic force microscope. Journal of Applied Physics, 2006, 99, 104102.	1.1	87
64	Ferroelectric Domain Wall Memristor. Advanced Functional Materials, 2020, 30, 2000109.	7.8	86
65	Nanoscopic studies of domain structure dynamics in ferroelectric La:HfO2 capacitors. Applied Physics Letters, 2018, 112, .	1.5	85
66	Domain structure and polarization reversal in ferroelectrics studied by atomic force microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 1095.	1.6	81
67	Nitrogen-Doping Induced Self-Assembly of Graphene Nanoribbon-Based Two-Dimensional and Three-Dimensional Metamaterials. Nano Letters, 2015, 15, 5770-5777.	4.5	80
68	Scanning Force Microscopy Studies of Domain Structure inBaTiO3Single Crystals. Japanese Journal of Applied Physics, 1997, 36, 2207-2211.	0.8	79
69	Piezoresponse force microscopy for polarity imaging of GaN. Applied Physics Letters, 2002, 80, 4166-4168.	1.5	79
70	Scaling effect on statistical behavior of switching parameters of ferroelectric capacitors. Applied Physics Letters, 1999, 75, 1452-1454.	1.5	77
71	Quasi-1D TiS₃ Nanoribbons: Mechanical Exfoliation and Thickness-Dependent Raman Spectroscopy. ACS Nano, 2018, 12, 12713-12720.	7.3	77
72	Nanoscale Scanning Force Imaging of Polarization Phenomena in Ferroelectric Thin Films. MRS Bulletin, 1998, 23, 33-42.	1.7	76

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73	Inâ€Plane Ferroelectricity in Thin Flakes of Van der Waals Hybrid Perovskite. Advanced Materials, 2018, 30, e1803249.	11.1	76
74	Review of Ferroelectric Domain Imaging by Piezoresponse Force Microscopy. , 2007, , 173-214.		76
75	Mechanical Tuning of LaAlO₃/SrTiO₃ Interface Conductivity. Nano Letters, 2015, 15, 3547-3551.	4.5	75
76	Polarization-Mediated Modulation of Electronic and Transport Properties of Hybrid MoS₂â€“BaTiO₃â€“SrRuO₃ Tunnel Junctions. Nano Letters, 2017, 17, 922-927.	4.5	75
77	Ferroelectric Domain Wall Injection. Advanced Materials, 2014, 26, 293-298.	11.1	72
78	Spatial inhomogeneity of imprint and switching behavior in ferroelectric capacitors. Applied Physics Letters, 2003, 82, 3071-3073.	1.5	69
79	Quantitative analysis of nanoscale switching in SrBi2Ta2O9 thin filmsby piezoresponse force microscopy. Applied Physics Letters, 2004, 85, 795-797.	1.5	69
80	Scaling Behavior of Resistive Switching in Epitaxial Bismuth Ferrite Heterostructures. Advanced Functional Materials, 2014, 24, 3962-3969.	7.8	68
81	Ferroelectric switching in epitaxial GeTe films. APL Materials, 2014, 2, .	2.2	67
82	Bioelectromechanical imaging by scanning probe microscopy: Galvani's experiment at the nanoscale. Ultramicroscopy, 2006, 106, 334-340.	0.8	66
83	Metallic surface doping of metal halide perovskites. Nature Communications, 2021, 12, 7.	5.8	66
84	Intrinsic ferroelectricity in Y-doped HfO2 thin films. Nature Materials, 2022, 21, 903-909.	13.3	66
85	Contribution of oxygen vacancies to the ferroelectric behavior of Hf0.5Zr0.5O2 thin films. Applied Physics Letters, 2015, 106, .	1.5	65
86	Enhancement of Local Piezoresponse in Polymer Ferroelectrics via Nanoscale Control of Microstructure. ACS Nano, 2015, 9, 1809-1819.	7.3	65
87	Understanding the effect of ferroelectric polarization on power conversion efficiency of organic photovoltaic devices. Energy and Environmental Science, 2012, 5, 8558.	15.6	64
88	Domain structure of lead germanate. Ferroelectrics, 1989, 98, 29-49.	0.3	62
89	Nanoelectromechanics of polarization switching in piezoresponse force microscopy. Journal of Applied Physics, 2005, 97, 074305.	1.1	62
90	Toward Ferroelectric Control of Monolayer MoS₂. Nano Letters, 2015, 15, 3364-3369.	4.5	62

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91	Electrical Tunability of Domain Wall Conductivity in LiNbO₃ Thin Films. Advanced Materials, 2019, 31, e1902890.	11.1	61
92	Scanning force microscopy: Application to nanoscale studies of ferroelectric domains. Integrated Ferroelectrics, 1998, 19, 49-83.	0.3	60
93	Two-Dimensional Nanoscale Structural and Functional Imaging in Individual Collagen Type I Fibrils. Biophysical Journal, 2010, 98, 3070-3077.	0.2	60
94	Statics and Dynamics of Ferroelectric Domains in Diisopropylammonium Bromide. Advanced Materials, 2015, 27, 7832-7838.	11.1	60
95	Polarizationâ€Dependent Electronic Transport in Graphene/Pb(Zr,Ti)O₃ Ferroelectric Fieldâ€Effect Transistors. Advanced Electronic Materials, 2017, 3, 1700020.	2.6	60
96	Mechanically-Induced Resistive Switching in Ferroelectric Tunnel Junctions. Nano Letters, 2012, 12, 6289-6292.	4.5	58
97	Fluid Imprint and Inertial Switching in Ferroelectric La:HfO₂ Capacitors. ACS Applied Materials & Interfaces, 2019, 11, 35115-35121.	4.0	58
98	Imaging and engineering the nanoscale-domain structure of a Sr0.61Ba0.39Nb2O6 crystal using a scanning force microscope. Applied Physics Letters, 2002, 81, 2044-2046.	1.5	57
99	Imaging mechanism of piezoresponse force microscopy in capacitor structures. Applied Physics Letters, 2008, 92, .	1.5	56
100	Nanomechanics of flexoelectric switching. Physical Review B, 2015, 92, .	1.1	56
101	Imprint Control of BaTiO₃ Thin Films via Chemically Induced Surface Polarization Pinning. Nano Letters, 2016, 16, 2400-2406.	4.5	56
102	Orientational imaging in polar polymers by piezoresponse force microscopy. Journal of Applied Physics, 2011, 110, .	1.1	55
103	Ferroelectricity in Hf_{0.5}Zr_{0.5}O₂ Thin Films: A Microscopic Study of the Polarization Switching Phenomenon and Field-Induced Phase Transformations. ACS Applied Materials & Interfaces, 2018, 10, 8818-8826.	4.0	55
104	Anisotropic polarization-induced conductance at a ferroelectricâ€“insulator interface. Nature Nanotechnology, 2018, 13, 1132-1136.	15.6	53
105	Physical adsorption on ferroelectric surfaces: photoinduced and thermal effects. Nanotechnology, 2008, 19, 495303.	1.3	52
106	Start the presses. Nature Materials, 2009, 8, 9-10.	13.3	51
107	Piezoresponse force microscopy for piezoelectric measurements of III-nitride materials. Journal of Crystal Growth, 2002, 246, 252-258.	0.7	50
108	Electromechanical imaging of biomaterials by scanning probe microscopy. Journal of Structural Biology, 2006, 153, 151-159.	1.3	50

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109	Synthesis and Application of Ferroelectric P(VDFâ€TrFE) Nanoparticles in Organic Photovoltaic Devices for High Efficiency. Advanced Energy Materials, 2013, 3, 1581-1588.	10.2	50
110	Nanodomain Engineering for Programmable Ferroelectric Devices. Nano Letters, 2019, 19, 3194-3198.	4.5	50
111	Characterization and Control of Domain Structure in SrBi2Ta2O9 Thin Films by Scanning Force Microscopy. Japanese Journal of Applied Physics, 1998, 37, L939-L941.	0.8	45
112	Nanoscopic switching behavior of epitaxial SrBi2Ta2O9 films deposited by pulsed laser deposition. Applied Physics Letters, 2000, 76, 106-108.	1.5	45
113	Low-Voltage Domain-Wall LiNbO₃ Memristors. Nano Letters, 2020, 20, 5873-5878.	4.5	45
114	Atomic force microscopy-based experimental setup for studying domain switching dynamics in ferroelectric capacitors. Review of Scientific Instruments, 2005, 76, 023708.	0.6	44
115	Scanning force microscopy as a tool for nanoscale study of ferroelectric domains. Ferroelectrics, 1996, 184, 11-20.	0.3	43
116	Polarization-specific adsorption of organic molecules on ferroelectric LiNbO3 surfaces. Applied Physics Letters, 2010, 97, 243702.	1.5	43
117	Dynamics of plane domain walls in lead germanate and gadolinium molybdate. Ferroelectrics, 1990, 111, 197-206.	0.3	43
118	Electromechanics of Ferroelectricâ€Like Behavior of LaAlO₃ Thin Films. Advanced Functional Materials, 2015, 25, 6538-6544.	7.8	42
119	Nanodomain Engineering in Ferroelectric Capacitors with Graphene Electrodes. Nano Letters, 2016, 16, 6460-6466.	4.5	41
120	Scanning probe investigation of surface charge and surface potential of GaN-based heterostructures. Applied Physics Letters, 2005, 86, 112115.	1.5	40
121	Dynamics of domain structure in uniaxial ferroelectrics. Ferroelectrics, 1990, 111, 123-131.	0.3	40
122	Intrinsic Conductance of Domain Walls in BiFeO₃. Advanced Materials, 2019, 31, e1902099.	11.1	39
123	Nanoscale Dynamics of Superdomain Boundaries in Singleâ€Crystal BaTiO₃ Lamellae. Advanced Materials, 2013, 25, 1323-1330.	11.1	38
124	Exploring Vertex Interactions in Ferroelectric Flux-Closure Domains. Nano Letters, 2014, 14, 4230-4237.	4.5	38
125	Peritubular Dentin Lacks Piezoelectricity. Journal of Dental Research, 2007, 86, 908-911.	2.5	37
126	Tailoring Selfâ€Polarization of BaTiO₃ Thin Films by Interface Engineering and Flexoelectric Effect. Advanced Materials Interfaces, 2016, 3, 1600737.	1.9	37

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127	Piezoelectricity in hafnia. Nature Communications, 2021, 12, 7301.	5.8	37
128	Skyrmion model of nano-domain nucleation in ferroelectrics and ferromagnets. Journal of Physics Condensed Matter, 2006, 18, L71-L79.	0.7	36
129	Abnormal domain switching in Pb(Zr,Ti)O3 thin film capacitors. Applied Physics Letters, 2008, 93, .	1.5	36
130	Investigation of Pb(Zr,Ti)O3âˆ•GaN heterostructures by scanning probe microscopy. Applied Physics Letters, 2004, 84, 5153-5155.	1.5	35
131	Simultaneous elastic and electromechanical imaging by scanning probe microscopy: Theory and applications to ferroelectric and biological materials. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2102.	1.6	35
132	High-resolution imaging of proteins in human teeth by scanning probe microscopy. Biochemical and Biophysical Research Communications, 2007, 352, 142-146.	1.0	35
133	A new test facility for efficient evaluation of MEMS contact materials. Journal of Micromechanics and Microengineering, 2007, 17, 1788-1795.	1.5	35
134	Nanoscale domain patterns in ultrathin polymer ferroelectric films. Journal of Physics Condensed Matter, 2009, 21, 485902.	0.7	35
135	Few-layer tin sulfide (SnS): Controlled synthesis, thickness dependent vibrational properties, and ferroelectricity. Nano Today, 2021, 37, 101082.	6.2	34
136	Room temperature ferroelectricity in continuous croconic acid thin films. Applied Physics Letters, 2016, 109, .	1.5	33
137	Roomâ€Temperature Ferroelectricity in Hexagonal TbMnO₃ Thin Films. Advanced Materials, 2014, 26, 7660-7665.	11.1	32
138	Direct Fabrication of Arbitraryâ€Shaped Ferroelectric Nanostructures on Plastic, Glass, and Silicon Substrates. Advanced Materials, 2011, 23, 3786-3790.	11.1	31
139	Interface control of surface photochemical reactivity in ultrathin epitaxial ferroelectric films. Applied Physics Letters, 2013, 102, .	1.5	31
140	Mechanically induced ferroelectric switching in BaTiO3 thin films. Acta Materialia, 2020, 193, 151-162.	3.8	31
141	The interface bonding and orientation of a quinonoid zwitterion. Physical Chemistry Chemical Physics, 2010, 12, 10329.	1.3	30
142	Tunneling Hot Spots in Ferroelectric SrTiO₃. Nano Letters, 2018, 18, 491-497.	4.5	30
143	Deterministic Switching of Ferroelectric Bubble Nanodomains. Advanced Functional Materials, 2019, 29, 1808573.	7.8	30
144	Direct observation of ferroelectricity in two-dimensional MoS2. Npj 2D Materials and Applications, 2022, 6, .	3.9	30

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145	Change of domain structure of lead germanate in strong electric field. Ferroelectrics, 1992, 126, 371-376.	0.3	29
146	Ferroelectric behavior in nominally relaxor lead lanthanum zirconate titanate thin films prepared by chemical solution deposition on copper foil. Applied Physics Letters, 2006, 88, 262907.	1.5	29
147	Voltage controlled NÃ©el vector rotation in zero magnetic field. Nature Communications, 2021, 12, 1674.	5.8	29
148	Nanoscale polarization relaxation in a polycrystalline ferroelectric thin film: Role of local environments. Applied Physics Letters, 2005, 86, 262910.	1.5	28
149	Effect of lanthanum doping on tetragonal-like<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BiFe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>with mixed-phase domain structures. Physical Review B, 2014, 90, .	1.1	28
150	Superdomain dynamics in ferroelectric-ferroelastic films: Switching, jamming, and relaxation. Applied Physics Reviews, 2017, 4, 041104.	5.5	28
151	Scaling of electroresistance effect in fully integrated ferroelectric tunnel junctions. Applied Physics Letters, 2016, 108, .	1.5	27
152	Investigation of the mechanism of polarization switching in ferroelectric capacitors by three-dimensional piezoresponse force microscopy. Applied Physics A: Materials Science and Processing, 2005, 80, 99-103.	1.1	26
153	Photo electron emission microscopy of polarity-patterned materials. Journal of Physics Condensed Matter, 2005, 17, S1415-S1426.	0.7	26
154	Retention of resistance states in ferroelectric tunnel memristors. Applied Physics Letters, 2013, 103, .	1.5	26
155	Multiferroic tunnel junctions and ferroelectric control of magnetic state at interface (invited). Journal of Applied Physics, 2015, 117, .	1.1	26
156	Theoretical Approach to Electroresistance in Ferroelectric Tunnel Junctions. Physical Review Applied, 2017, 7, .	1.5	26
157	Epitaxial Ferroelectric Hf_{0.5}Zr_{0.5}O₂ with Metallic Pyrochlore Oxide Electrodes. Advanced Materials, 2021, 33, e2006089.	11.1	26
158	Peculiar effect of mechanical stress on polarization stability in micrometer-scale ferroelectric capacitors. Applied Physics Letters, 2008, 93, .	1.5	25
159	Nanodomain faceting in ferroelectrics. Journal of Physics Condensed Matter, 2008, 20, 425222.	0.7	24
160	Effect of disorder potential on domain switching behavior in polymer ferroelectric films. Nanotechnology, 2013, 24, 015706.	1.3	24
161	High-Symmetry Polarization Domains in Low-Symmetry Ferroelectrics. Nano Letters, 2014, 14, 6931-6935.	4.5	24
162	Fabrication of ferroelectric polymer nanostructures on flexible substrates by soft-mold reverse nanoimprint lithography. Nanotechnology, 2016, 27, 015302.	1.3	24

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163	Protein adsorption on piezoelectric poly(L-lactic) acid thin films by scanning probe microscopy. Applied Physics Letters, 2011, 98, .	1.5	23
164	Polarization relaxation kinetics in ultrathin ferroelectric capacitors. Applied Physics Letters, 2013, 102, .	1.5	23
165	Ferroelectric polymer nanopillar arrays on flexible substrates by reverse nanoimprint lithography. Journal of Materials Chemistry C, 2016, 4, 5914-5921.	2.7	23
166	Self-Assembly of Organic Ferroelectrics by Evaporative Dewetting: A Case of Î²-Glycine. ACS Applied Materials & Interfaces, 2017, 9, 20029-20037.	4.0	23
167	Probing Antiferroelectricâ€Ferroelectric Phase Transitions in PbZrO₃ Capacitors by Piezoresponse Force Microscopy. Advanced Functional Materials, 2020, 30, 2003622.	7.8	23
168	Effect of Film Microstructure on Domain Nucleation and Intrinsic Switching in Ferroelectric Y:HfO₂ Thin Film Capacitors. Advanced Functional Materials, 2022, 32, 2108876.	7.8	23
169	Transient nature of negative capacitance in ferroelectric field-effect transistors. Solid State Communications, 2017, 265, 12-14.	0.9	22
170	Oxygen Stoichiometry Effect on Polar Properties of LaAlO₃/SrTiO₃. Advanced Functional Materials, 2018, 28, 1707159.	7.8	22
171	Probing intrinsic polarization properties in bismuth-layered ferroelectric films. Applied Physics Letters, 2007, 90, 112914.	1.5	21
172	Colossal Xâ€Rayâ€Induced Persistent Photoconductivity in Currentâ€Perpendicularâ€toâ€Plane Ferroelectric/Semiconductor Junctions. Advanced Functional Materials, 2018, 28, 1704337.	7.8	21
173	Thickness profiles through fatigued bulk ceramic lead zirconate titanate. Journal of Applied Physics, 2006, 100, 114117.	1.1	20
174	Experimental evidence of strain relaxed domain structure in (100)/(001)-oriented epitaxial lead titanate thick films grown by metal organic chemical vapor deposition. Journal of Applied Physics, 2008, 104, 064121.	1.1	20
175	Sequential injection of domain walls into ferroelectrics at different bias voltages: Paving the way for â€œdomain wall memristorsâ€. Journal of Applied Physics, 2014, 116, .	1.1	20
176	Asymmetry in mechanical polarization switching. Applied Physics Letters, 2017, 110, .	1.5	20
177	Origin and implications of the observed rhombohedral phase in nominally tetragonal Pb(Zr[sub) Tj ETQq1 1 0.784314 rgBT /Overlock	1.1	19
178	Nanoscale insight into the statics and dynamics of polarization behavior in thin film ferroelectric capacitors. Journal of Materials Science, 2009, 44, 5182-5188.	1.7	19
179	Polarization Mediated Chemistry on Ferroelectric Polymer Surfaces. Journal of Physical Chemistry C, 2011, 115, 13041-13046.	1.5	19
180	Ferroelectricâ€“carbon nanotube memory devices. Nanotechnology, 2012, 23, 165702.	1.3	19

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181	Effect of epitaxial strain on tunneling electroresistance in ferroelectric tunnel junctions. Nanotechnology, 2015, 26, 305202.	1.3	19
182	Scanning force microscopy study of domain structure in pb (zrxti1-x)o3thin films and pt/pzt/pt and ruo2/pzt/ruo2capacitors. Integrated Ferroelectrics, 1997, 15, 107-114.	0.3	17
183	Harnessing Phase Transitions in Antiferroelectric ZrO₂ Using the Size Effect. Advanced Electronic Materials, 2022, 8, 2100556.	2.6	17
184	Anisotropy of domain growth in epitaxial ferroelectric capacitors. Applied Physics Letters, 2010, 96, 112903.	1.5	16
185	Domain wall conductivity in semiconducting hexagonal ferroelectric TbMnO₃thin films. Nanotechnology, 2016, 27, 155705.	1.3	16
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