

Nagarajan Valanoor

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/8394547/nagarajan-valanoor-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

216
papers

13,606
citations

52
h-index

114
g-index

229
ext. papers

14,738
ext. citations

6.9
avg, IF

5.95
L-index

#	Paper	IF	Citations
216	Understanding the Role of Defective Phases on the Conductivity Behavior of Strained Epitaxial LaNiO ₃ Thin Films. <i>ACS Applied Electronic Materials</i> , 2022 , 4, 1196-1205	4	
215	Valley population of donor states in highly strained silicon. <i>Materials for Quantum Technology</i> , 2022 , 2, 025002		1
214	Optical Tuning of Resistance Switching in Polycrystalline Gallium Phosphide Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 2327-2333	6.4	3
213	Electromechanical Manipulation of Topological Defects to Yield Giant Piezoelectric Response in Epitaxial Lead Zirconate Titanate Bilayers on Silicon. <i>Advanced Electronic Materials</i> , 2021 , 7, 2100195	6.4	0
212	Ambient effect on the Curie temperatures and magnetic domains in metallic two-dimensional magnets. <i>Npj 2D Materials and Applications</i> , 2021 , 5,	8.8	6
211	Predicting Epitaxial Nanocrystal Morphology Governed by Interfacial Strain—The Case for NiO on SrTiO ₃ . <i>Journal of Physical Chemistry C</i> , 2021 , 125, 12827-12836	3.8	
210	Antiphase-Boundary-Engineered Domain Switching in a (110)-Oriented BiFeO ₃ Film. <i>ACS Applied Electronic Materials</i> , 2021 , 3, 3226-3233	4	0
209	X-ray photoemission studies of BiInO ₃ : Surface termination and effective Debye temperature. <i>Journal of Applied Physics</i> , 2021 , 130, 025304	2.5	2
208	Propagation of priors for more accurate and efficient spectroscopic functional fits and their application to ferroelectric hysteresis. <i>Machine Learning: Science and Technology</i> , 2021 , 2, 045002	5.1	0
207	Freestanding Ferroelectric Bubble Domains. <i>Advanced Materials</i> , 2021 , 33, e2105432	24	2
206	Anisotropic epitaxial stabilization of a low-symmetry ferroelectric with enhanced electromechanical response. <i>Nature Materials</i> , 2021 ,	27	10
205	Probing polarization dynamics at specific domain configurations: Computer-vision based automated experiment in piezoresponse force microscopy. <i>Applied Physics Letters</i> , 2021 , 119, 132902	3.4	3
204	Depolarization field tuning of nanoscale ferroelectric domains in (001)PbZr _{0.4} Ti _{0.6} O ₃ /SrTiO ₃ /PbZr _{0.4} Ti _{0.6} O ₃ epitaxial heterostructures. <i>Journal of Applied Physics</i> , 2021 , 129, 024104	2.5	0
203	Recent progress in artificial synaptic devices: materials, processing and applications. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 8372-8394	7.1	15
202	Tuning Phase Fractions and Leakage Properties of Chemical Solution Deposition-Derived Mixed-Phase BiFeO ₃ Thin Films. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 4099-4110	4	2
201	A perspective on electrode engineering in ultrathin ferroelectric heterostructures for enhanced tunneling electroresistance. <i>Applied Physics Reviews</i> , 2020 , 7, 041316	17.3	4
200	Fowler-Nordheim tunneling-assisted enhancement of tunneling electroresistance effect through a composite barrier. <i>Applied Physics Letters</i> , 2020 , 116, 202901	3.4	5

199	Self-Assembled NiO Nanocrystal Arrays as Memristive Elements. <i>Advanced Electronic Materials</i> , 2020 , 6, 1901153	6.4	2
198	Superior polarization retention through engineered domain wall pinning. <i>Nature Communications</i> , 2020 , 11, 349	17.4	27
197	Bi-Doped Single-Crystalline (001) Epitaxial TiO ₂ Anatase Nanostructures for Resistive Random Access Memory Applications. <i>ACS Applied Nano Materials</i> , 2020 , 3, 1706-1712	5.6	2
196	Interfacial Strain Gradients Control Nanoscale Domain Morphology in Epitaxial BiFeO ₃ Multiferroic Films. <i>Advanced Functional Materials</i> , 2020 , 30, 2000343	15.6	11
195	Structural and electronic properties of monodomain ultrathin PbTiO ₃ /SrTiO ₃ /PbTiO ₃ /SrRuO ₃ heterostructures: A first-principles approach. <i>Journal of Applied Physics</i> , 2020 , 128, 244102	2.5	2
194	Topology and control of self-assembled domain patterns in low-dimensional ferroelectrics. <i>Nature Communications</i> , 2020 , 11, 5779	17.4	10
193	The Experimentalist's Guide to the Cycloid, or Noncollinear Antiferromagnetism in Epitaxial BiFeO ₃ . <i>Advanced Materials</i> , 2020 , 32, e2003711	24	15
192	Controlled Nucleation and Stabilization of Ferroelectric Domain Wall Patterns in Epitaxial (110) Bismuth Ferrite Heterostructures. <i>Advanced Functional Materials</i> , 2020 , 30, 2003571	15.6	5
191	Large-scale multiferroic complex oxide epitaxy with magnetically switched polarization enabled by solution processing. <i>National Science Review</i> , 2020 , 7, 84-91	10.8	11
190	Ferroelastic domain motion by pulsed electric field in (111)/(111̄) rhombohedral epitaxial Pb(Zr _{0.65} Ti _{0.35})O ₃ thin films: Fast switching and relaxation. <i>Physical Review B</i> , 2019 , 100,	3.3	1
189	GaPZnS Multilayer Films: Visible-Light Photoelectrodes by Interface Engineering. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 3336-3342	3.8	6
188	Temperature-Dependent Magnetic Domain Evolution in Noncollinear Ferrimagnetic FeV ₂ O ₄ Thin Films. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 817-822	4	2
187	Deterministic Switching of Ferroelectric Bubble Nanodomains. <i>Advanced Functional Materials</i> , 2019 , 29, 1808573	15.6	21
186	Deterministic optical control of room temperature multiferroicity in BiFeO thin films. <i>Nature Materials</i> , 2019 , 18, 580-587	27	41
185	Expansion of the spin cycloid in multiferroic BiFeO ₃ thin films. <i>Npj Quantum Materials</i> , 2019 , 4,	5	21
184	Conformational Domain Wall Switch. <i>Advanced Functional Materials</i> , 2019 , 29, 1807523	15.6	32
183	Nondestructive Mapping of Long-Range Dislocation Strain Fields in an Epitaxial Complex Metal Oxide. <i>Nano Letters</i> , 2019 , 19, 1445-1450	11.5	10
182	Encapsulation of Metal Oxide Nanoparticles by Oxide Supports during Epitaxial Growth. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 1482-1488	4	0

181	Deterministic Ferroelastic Domain Switching Using Ferroelectric Bilayers. <i>Nano Letters</i> , 2019 , 19, 5319-5326	5.2	9
180	Interfacial origins of visible-light photocatalytic activity in ZnS/CaP multilayers. <i>Acta Materialia</i> , 2019 , 181, 139-147	8.4	3
179	Influence of flexoelectricity on the spin cycloid in (110)-oriented BiFeO ₃ films. <i>Physical Review Materials</i> , 2019 , 3,	3.2	6
178	Electrode Dependence of Local Electrical Properties of Chemical-Solution-Deposition-Derived BiFeO ₃ Thin Films. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 154-162	4	8
177	Enhanced tunneling electroresistance effect in composite ferroelectric tunnel junctions with asymmetric electrodes. <i>MRS Communications</i> , 2019 , 9, 258-263	2.7	2
176	Structural, magnetic, and ferroelectric properties of T-like cobalt-doped BiFeO ₃ thin films. <i>APL Materials</i> , 2018 , 6, 026102	5.7	11
175	Mixed-phase bismuth ferrite thin films by chemical solution deposition. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 2882-2888	7.1	10
174	Revisiting the Optical Band Gap in Epitaxial BiFeO ₃ Thin Films. <i>Advanced Optical Materials</i> , 2018 , 6, 1700836	3.6	31
173	Interface Engineering of ZnS/GaP Multilayer Films: Understanding the Origins of High Visible-Light Photoactivity. <i>Microscopy and Microanalysis</i> , 2018 , 24, 142-143	0.5	
172	Increase of power conversion efficiency in dye-sensitized solar cells through ferroelectric substrate induced charge transport enhancement. <i>Scientific Reports</i> , 2018 , 8, 17389	4.9	8
171	Epitaxial ferroelectric oxide thin films for optical applications. <i>Applied Physics Reviews</i> , 2018 , 5, 041108	17.3	26
170	Designer defect stabilization of the super tetragonal phase in >70-nm-thick BiFeO ₃ films on LaAlO ₃ substrates. <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 0902B2	1.4	14
169	Mechanical stress-induced switching kinetics of ferroelectric thin films at the nanoscale. <i>Nanotechnology</i> , 2017 , 28, 075709	3.4	18
168	Strain Dependent Electronic Structure and Band Offset Tuning at Heterointerfaces of ASnO (A=Ca, Sr, and Ba) and SrTiO. <i>Scientific Reports</i> , 2017 , 7, 41725	4.9	14
167	Localised nanoscale resistive switching in GaP thin films with low power consumption. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 2153-2159	7.1	5
166	Magnetic and Magnetodielectric Properties of Epitaxial Iron Vanadate Thin Films. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600295	6.4	7
165	Nanoscale Bubble Domains and Topological Transitions in Ultrathin Ferroelectric Films. <i>Advanced Materials</i> , 2017 , 29, 1702375	24	64
164	Morphology-dependent photo-induced polarization recovery in ferroelectric thin films. <i>Applied Physics Letters</i> , 2017 , 111, 092902	3.4	15

163	In-situ observation of ultrafast 90° domain switching under application of an electric field in (100)/(001)-oriented tetragonal epitaxial Pb(ZrTi)O thin films. <i>Scientific Reports</i> , 2017 , 7, 9641	4.9	19
162	Nanoscale Probing of Elastic-Electronic Response to Vacancy Motion in NiO Nanocrystals. <i>ACS Nano</i> , 2017 , 11, 8387-8394	16.7	7
161	Nonvolatile ferroelectric domain wall memory. <i>Science Advances</i> , 2017 , 3, e1700512	14.3	183
160	Universal Approach for Predicting Crystallography of Heterogeneous Epitaxial Nanocrystals with Multiple Orientation Relationships. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 34844-34853	9.5	4
159	Reversible Polarization Rotation in Epitaxial Ferroelectric Bilayers. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600444	4.6	11
158	Enhancement of Dielectric Properties in Epitaxial Bismuth Ferrite/Bismuth Samarium Ferrite Superlattices. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600170	6.4	7
157	Direct evidence for the spin cycloid in strained nanoscale bismuth ferrite thin films. <i>Nature Communications</i> , 2016 , 7, 12664	17.4	29
156	Nanoscale Origins of Ferroelastic Domain Wall Mobility in Ferroelectric Multilayers. <i>ACS Nano</i> , 2016 , 10, 10126-10134	16.7	9
155	Positive Effect of an Internal Depolarization Field in Ultrathin Epitaxial Ferroelectric Films. <i>Advanced Electronic Materials</i> , 2016 , 2, 1500288	6.4	36
154	Morphotropic Phase Elasticity of Strained BiFeO ₃ . <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600033	4.6	32
153	A multiferroic on the brink: Uncovering the nuances of strain-induced transitions in BiFeO ₃ . <i>Applied Physics Reviews</i> , 2016 , 3, 011106	17.3	80
152	Dual strain mechanisms in a lead-free morphotropic phase boundary ferroelectric. <i>Scientific Reports</i> , 2016 , 6, 19630	4.9	49
151	ZnS Thin Films for Visible-Light Active Photoelectrodes: Effect of Film Morphology and Crystal Structure. <i>Crystal Growth and Design</i> , 2016 , 16, 2461-2465	3.5	24
150	Chemical route derived bismuth ferrite thin films and nanomaterials. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 4092-4124	7.1	99
149	Topological Structures in Multiferroics I Domain Walls, Skyrmions and Vortices. <i>Advanced Electronic Materials</i> , 2016 , 2, 1500292	6.4	66
148	Defect engineering of ZnS thin films for photoelectrochemical water-splitting under visible light. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 153, 179-185	6.4	46
147	Nanostructuring Ferroelectrics via Focused Ion Beam Methodologies. <i>Advanced Functional Materials</i> , 2016 , 26, 8367-8381	15.6	23
146	Temperature dependent piezoelectric response and strain-electric-field hysteresis of rare-earth modified bismuth ferrite ceramics. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 7859-7868	7.1	34

145	Epitaxial PbZr _x Ti _{1-x} O ₃ Ferroelectric Bilayers with Giant Electromechanical Properties. <i>Advanced Materials Interfaces</i> , 2015 , 2, 1500075	4.6	13
144	Mapping strain modulated electronic structure perturbations in mixed phase bismuth ferrite thin films. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 1835-1845	7.1	12
143	Epitaxial (001) BiFeO ₃ thin-films with excellent ferroelectric properties by chemical solution deposition-the role of gelation. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 582-595	7.1	39
142	Synthesis-phase-composition relationship and high electric-field-induced electromechanical behavior of samarium-modified BiFeO ₃ ceramics. <i>Acta Materialia</i> , 2015 , 83, 149-159	8.4	47
141	Understanding growth mechanisms of epitaxial manganese oxide (Mn ₃ O ₄) nanostructures on strontium titanate (STO) oxide substrates. <i>MRS Communications</i> , 2015 , 5, 277-284	2.7	3
140	Strain-induced magnetic phase transition in SrCoO ₃ thin films. <i>Physical Review B</i> , 2015 , 91,	3.3	46
139	Analysis of interfacial structure and chemistry in FeV ₂ O ₄ -based heterostructures on (001)-oriented SrTiO ₃ . <i>Journal of Physics: Conference Series</i> , 2015 , 644, 012003	0.3	
138	Role of Interface Structure and Chemistry in Resistive Switching of NiO Nanocrystals on SrTiO ₃ . <i>Microscopy and Microanalysis</i> , 2015 , 21, 781-782	0.5	
137	Self-Assembled Epitaxial Core-Shell Nanocrystals with Tunable Magnetic Anisotropy. <i>Small</i> , 2015 , 11, 4117-22	11	5
136	Robust polarization and strain behavior of Sm-modified BiFeO ₃ piezoelectric ceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2015 , 62, 83-7	3.2	16
135	Sub-critical field domain reversal in epitaxial ferroelectric films. <i>Journal of Applied Physics</i> , 2014 , 116, 124109	2.5	7
134	Scaling Behavior of Resistive Switching in Epitaxial Bismuth Ferrite Heterostructures. <i>Advanced Functional Materials</i> , 2014 , 24, 3962-3969	15.6	56
133	Misfit strain driven cation inter-diffusion across an epitaxial multiferroic thin film interface. <i>Journal of Applied Physics</i> , 2014 , 115, 054103	2.5	28
132	Element-specific depth profile of magnetism and stoichiometry at the La _{0.67} Sr _{0.33} MnO ₃ /BiFeO ₃ interface. <i>Physical Review B</i> , 2014 , 90,	3.3	16
131	Deterministic arbitrary switching of polarization in a ferroelectric thin film. <i>Nature Communications</i> , 2014 , 5, 4971	17.4	31
130	Defect thermodynamics and kinetics in thin strained ferroelectric films: The interplay of possible mechanisms. <i>Physical Review B</i> , 2014 , 89,	3.3	25
129	Interface control of a morphotropic phase boundary in epitaxial samarium modified bismuth ferrite superlattices. <i>Physical Review B</i> , 2014 , 90,	3.3	19
128	In-situ investigation of thermal instabilities and solid state dewetting in polycrystalline platinum thin films via confocal laser microscopy. <i>Journal of Applied Physics</i> , 2014 , 116, 163511	2.5	10

127	Chemical solution deposition derived (001)-oriented epitaxial BiFeO ₃ thin films with robust ferroelectric properties using stoichiometric precursors (invited). <i>Journal of Applied Physics</i> , 2014 , 116, 066810	2.5	19
126	Role of interface structure and chemistry in resistive switching of NiO nanocrystals on SrTiO ₃ . <i>APL Materials</i> , 2014 , 2, 032109	5.7	9
125	Preface to Special Topic: Piezoresponse force microscopy and nanoscale phenomena in polar materials. <i>Journal of Applied Physics</i> , 2014 , 116, 066701	2.5	1
124	Clamping-induced changes of domain morphology in 88%Pb(Zn _{1/3} Nb _{2/3})O ₃ -12%PbTiO ₃ . <i>Journal of Applied Physics</i> , 2014 , 116, 066812	2.5	1
123	Interface-dependent electrochemical behavior of nanostructured manganese (IV) oxide (Mn ₃ O ₄). <i>Electrochimica Acta</i> , 2014 , 130, 810-817	6.7	14
122	Domain Wall Conduction and Polarization-Mediated Transport in Ferroelectrics. <i>Advanced Functional Materials</i> , 2013 , 23, 2592-2616	15.6	96
121	Structure-Property Correlations in Rare-Earth-Substituted BiFeO ₃ Epitaxial Thin Films at the Morphotropic Phase Boundary 2013 , 195-219		2
120	Phase field simulations of ferroelectrics domain structures in PbZr _x Ti _{1-x} O ₃ bilayers. <i>Acta Materialia</i> , 2013 , 61, 2909-2918	8.4	44
119	Epitaxial Bi ₅ Ti ₃ FeO ₁₅ -CoFe ₂ O ₄ pillar-matrix multiferroic nanostructures. <i>ACS Nano</i> , 2013 , 7, 11079-86	16.7	52
118	Piezoelectric membranes for separation processes: Fabrication and piezoelectric properties. <i>Journal of Membrane Science</i> , 2013 , 434, 184-192	9.6	52
117	Stability and dewetting kinetics of thin gold films on Ti, TiO _x and ZnO adhesion layers. <i>Acta Materialia</i> , 2013 , 61, 7841-7848	8.4	10
116	Self-similar nested flux closure structures in a tetragonal ferroelectric. <i>Nano Letters</i> , 2013 , 13, 2553-7	11.5	41
115	Nanoscale Origins of Nonlinear Behavior in Ferroic Thin Films. <i>Advanced Functional Materials</i> , 2013 , 23, 81-90	15.6	18
114	Higher order harmonic detection for exploring nonlinear interactions with nanoscale resolution. <i>Scientific Reports</i> , 2013 , 3, 2677	4.9	15
113	Unraveling the origins of electromechanical response in mixed-phase bismuth ferrite. <i>Physical Review B</i> , 2013 , 88,	3.3	28
112	Interface control of surface photochemical reactivity in ultrathin epitaxial ferroelectric films. <i>Applied Physics Letters</i> , 2013 , 102, 182904	3.4	31
111	Epitaxial NiO nanocrystals: a dimensional analysis. <i>MRS Communications</i> , 2013 , 3, 107-111	2.7	3
110	TiO ₂ -Au plasmonic nanocomposite for enhanced dye-sensitized solar cell (DSSC) performance. <i>Solar Energy</i> , 2012 , 86, 1428-1434	6.8	149

109	Effect of processing kinetics on the structure of ferromagnetic-ferroelectric-ferromagnetic interfaces. <i>Journal of Applied Physics</i> , 2012 , 112, 104102	2.5	5
108	Domain wall geometry controls conduction in ferroelectrics. <i>Nano Letters</i> , 2012 , 12, 5524-31	11.5	103
107	Doping BiFeO ₃ : approaches and enhanced functionality. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 15953-62	3.6	286
106	Controlling magnetoelectric coupling by nanoscale phase transformation in strain engineered bismuth ferrite. <i>Nanoscale</i> , 2012 , 4, 3175-83	7.7	34
105	Epitaxial Magnetic Oxide Nanocrystals Via Phase Decomposition of Bismuth Perovskite Precursors. <i>Advanced Functional Materials</i> , 2012 , 22, 5224-5230	15.6	24
104	Electrical control of multiferroic orderings in mixed-phase BiFeO ₃ films. <i>Advanced Materials</i> , 2012 , 24, 3070-5	24	49
103	Atomic-scale evolution of modulated phases at the ferroelectric-antiferroelectric morphotropic phase boundary controlled by flexoelectric interaction. <i>Nature Communications</i> , 2012 , 3, 775	17.4	135
102	Electrical domain morphologies in compositionally graded ferroelectric films. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 024215	1.8	10
101	Interface mediated resistive switching in epitaxial NiO nanostructures. <i>Applied Physics Letters</i> , 2012 , 100, 203115	3.4	54
100	Temperature and Frequency Dependencies of Ferroelectric Properties in Rhombohedral Epitaxial Pb(Zr,Ti)O ₃ Films with Perfect (111) Orientations Grown on CaF ₂ Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1397, 65		
99	Phase evolution of magnetite nanocrystals on oxide supports via template-free bismuth ferrite precursor approach. <i>Journal of Applied Physics</i> , 2012 , 112, 104321	2.5	6
98	Chemistry of Ruddlesden-Popper planar faults at a ferroelectric-ferromagnet perovskite interface. <i>Journal of Applied Physics</i> , 2011 , 109, 084101	2.5	13
97	Mobile Ferroelastic Domain Walls in Nanocrystalline PZT Films: the Direct Piezoelectric Effect. <i>Advanced Functional Materials</i> , 2011 , 21, 3104-3110	15.6	23
96	Exploring topological defects in epitaxial BiFeO ₃ thin films. <i>ACS Nano</i> , 2011 , 5, 879-87	16.7	102
95	Nanoscale control of phase variants in strain-engineered BiFeO ₃ . <i>Nano Letters</i> , 2011 , 11, 3346-54	11.5	70
94	Edge and finite size effects in polycrystalline ferroelectrics. <i>Acta Materialia</i> , 2011 , 59, 191-201	8.4	7
93	Ultrafast switching of ferroelastic nanodomains in bilayered ferroelectric thin films. <i>Applied Physics Letters</i> , 2011 , 99, 182906	3.4	18
92	Probing La _{0.7} Sr _{0.3} MnO ₃ multilayers via spin wave resonances. <i>Physical Review B</i> , 2011 , 84,	3.3	18

91	Microstructural analysis of interfaces in a ferromagnetic-multiferroic epitaxial heterostructure. <i>Journal of Applied Physics</i> , 2011 , 109, 034103	2.5	11
90	Ferroelectric and electrical characterization of multiferroic BiFeO ₃ at the single nanoparticle level. <i>Applied Physics Letters</i> , 2011 , 99, 252905	3.4	9
89	Composition and temperature-induced structural evolution in La, Sm, and Dy substituted BiFeO ₃ epitaxial thin films at morphotropic phase boundaries. <i>Journal of Applied Physics</i> , 2011 , 110, 014106	2.5	45
88	Theory of giant electromechanical response from ferroelectric bilayers with polydomain structures due to interlayer and interdomain coupling. <i>Physical Review Letters</i> , 2010 , 105, 197601	7.4	26
87	Nanoscale modulation of electronic states across unit cell steps on the surface of an epitaxial colossal magnetoresistance manganite film. <i>Applied Physics Letters</i> , 2010 , 96, 263108	3.4	7
86	Phase coexistence near a morphotropic phase boundary in Sm-doped BiFeO ₃ films. <i>Applied Physics Letters</i> , 2010 , 97, 152902	3.4	65
85	Phase diagrams, dielectric response, and piezoelectric properties of epitaxial ultrathin (001) lead zirconate titanate films under anisotropic misfit strains. <i>Journal of Applied Physics</i> , 2010 , 107, 114105	2.5	21
84	Microstructure-electromechanical property correlations in rare-earth-substituted BiFeO ₃ epitaxial thin films at morphotropic phase boundaries. <i>Applied Physics Letters</i> , 2010 , 97, 212905	3.4	69
83	Self-Template Growth of Ferroelectric Bi ₄ Ti ₃ O ₁₂ Nanoplates via Flux-Mediated Epitaxy with VO _x . <i>Crystal Growth and Design</i> , 2010 , 10, 5233-5237	3.5	9
82	Synthesis of epitaxial metal oxide nanocrystals via a phase separation approach. <i>ACS Nano</i> , 2010 , 4, 5139-5147	3.6	30
81	A template and catalyst-free metal-etching-oxidation method to synthesize aligned oxide nanowire arrays: NiO as an example. <i>ACS Nano</i> , 2010 , 4, 4785-91	16.7	41
80	Chemistry of the FeO/BiFeO ₃ Interface in BiFeO ₃ Thin Film Heterostructures. <i>Materials</i> , 2010 , 3, 5274-5283	3.5	5
79	Nanoscale Structural and Chemical Properties of Antipolar Clusters in Sm-Doped BiFeO ₃ Ferroelectric Epitaxial Thin Films. <i>Chemistry of Materials</i> , 2010 , 22, 2588-2596	9.6	65
78	Misfit strain/film thickness phase diagrams and related electromechanical properties of epitaxial ultra-thin lead zirconate titanate films. <i>Acta Materialia</i> , 2010 , 58, 823-835	8.4	33
77	Microstructure and texture development in single layered and heterolayered PZT thin films. <i>Journal of Materials Science</i> , 2010 , 45, 6187-6199	4.3	8
76	Universal Behavior and Electric-Field-Induced Structural Transition in Rare-Earth-Substituted BiFeO ₃ . <i>Advanced Functional Materials</i> , 2010 , 20, 1108-1115	15.6	312
75	Crossing an Interface: Ferroelectric Control of Tunnel Currents in Magnetic Complex Oxide Heterostructures. <i>Advanced Functional Materials</i> , 2010 , 20, 2436-2441	15.6	116
74	Direct evidence for cation non-stoichiometry and cottrell atmospheres around dislocation cores in functional oxide interfaces. <i>Advanced Materials</i> , 2010 , 22, 2430-4	24	52

73	Collective dynamics in nanostructured polycrystalline ferroelectric thin films using local time-resolved measurements and switching spectroscopy. <i>Acta Materialia</i> , 2010 , 58, 67-75	8.4	24
72	Ferroelastic domain wall dynamics in ferroelectric bilayers. <i>Acta Materialia</i> , 2010 , 58, 5316-5325	8.4	28
71	Enhanced nonvolatile resistive switching in dilutely cobalt doped TiO ₂ . <i>Applied Physics Letters</i> , 2009 , 95, 203502	3.4	57
70	Labile Ferroelastic Nanodomains in Bilayered Ferroelectric Thin Films. <i>Advanced Materials</i> , 2009 , 21, 3497-3502	7.4	55
69	Structural defects and local chemistry across ferroelectric-electrode interfaces in epitaxial heterostructures. <i>Journal of Materials Science</i> , 2009 , 44, 5297-5306	4.3	14
68	Ferroelastic interactions in bilayered ferroelectric thin films. <i>Journal of Materials Science</i> , 2009 , 44, 5383-5392	4.3	1
67	Recent developments in ferroelectric nanostructures and multilayers. <i>Journal of Materials Science</i> , 2009 , 44, 5021-5024	4.3	9
66	Structural transitions and complex domain structures across a ferroelectric-to-antiferroelectric phase boundary in epitaxial Sm-doped BiFeO ₃ thin films. <i>Physical Review B</i> , 2009 , 80,	3.3	153
65	Ferroelastic domains in bilayered ferroelectric thin films. <i>Journal of Applied Physics</i> , 2008 , 104, 124103	2.5	13
64	Combinatorial discovery of a lead-free morphotropic phase boundary in a thin-film piezoelectric perovskite. <i>Applied Physics Letters</i> , 2008 , 92, 202904	3.4	231
63	Method to distinguish ferroelectric from nonferroelectric origin in case of resistive switching in ferroelectric capacitors. <i>Applied Physics Letters</i> , 2008 , 92, 062907	3.4	83
62	Creation of damage-free ferroelectric nanostructures via focused ion beam milling. <i>Nanotechnology</i> , 2008 , 19, 175302	3.4	15
61	Role of oxygen partial pressure and seed layer chemistry in flux mediated epitaxy of single phase multiferroic BiFeO ₃ thin films. <i>Applied Physics Letters</i> , 2008 , 93, 192906	3.4	7
60	Film thickness versus misfit strain phase diagrams for epitaxial PbTiO ₃ ultrathin ferroelectric films. <i>Physical Review B</i> , 2008 , 78,	3.3	58
59	Ferroelastic domain switching fatigue in lead zirconate titanate ceramics. <i>Acta Materialia</i> , 2008 , 56, 1577-1587	7.1	25
58	Nanoscale polarization relaxation kinetics in polycrystalline ferroelectric thin films. <i>Journal of Applied Physics</i> , 2007 , 101, 084104	2.5	5
57	The Effects of Multiphase Formation on Strain Relaxation and Magnetization in Multiferroic BiFeO ₃ Thin Films. <i>Advanced Functional Materials</i> , 2007 , 17, 2594-2599	15.6	38
56	Unit-cell scale mapping of ferroelectricity and tetragonality in epitaxial ultrathin ferroelectric films. <i>Nature Materials</i> , 2007 , 6, 64-9	27	322

55	The Effect of Substrate Material and Postannealing on the Photoluminescence and Piezo Properties of DC-Sputtered ZnO. <i>Journal of Electronic Materials</i> , 2007 , 36, 507-518	1.9	10
54	Nanoscale domain switching behaviour in polycrystalline ferroelectric thin films. <i>Nanotechnology</i> , 2007 , 18, 465502	3.4	18
53	Comment on Simulation of interface dislocations effect on polarization distribution of ferroelectric thin films [Appl. Phys. Lett. 88, 092903 (2006)]. <i>Applied Physics Letters</i> , 2007 , 90, 236101	3.4	5
52	Giant strain in PbZr _{0.2} Ti _{0.8} O ₃ nanowires. <i>Applied Physics Letters</i> , 2007 , 90, 052902	3.4	61
51	Theoretical investigation of polarization scaling in ultrathin epitaxial PbZr _x Ti _{1-x} O ₃ films. <i>Journal of Applied Physics</i> , 2007 , 102, 104113	2.5	9
50	Ferroelectric nanostructures via a modified focused ion beam technique. <i>Nanotechnology</i> , 2006 , 17, 338-343	3.4	31
49	Fabrication of multiferroic epitaxial BiCrO ₃ thin films. <i>Applied Physics Letters</i> , 2006 , 88, 152902	3.4	36
48	Scaling of structure and electrical properties in ultrathin epitaxial ferroelectric heterostructures. <i>Journal of Applied Physics</i> , 2006 , 100, 051609	2.5	101
47	Thermodynamic and electrostatic analysis of threading dislocations in epitaxial ferroelectric films. <i>Applied Physics Letters</i> , 2006 , 88, 102906	3.4	31
46	High-resolution piezoresponse force microscopy investigation of imprint in ferroelectric thin films. <i>Applied Physics Letters</i> , 2006 , 89, 132912	3.4	12
45	Thickness dependence of structural and piezoelectric properties of epitaxial Pb(Zr _{0.52} Ti _{0.48})O ₃ films on Si and SrTiO ₃ substrates. <i>Applied Physics Letters</i> , 2006 , 88, 142904	3.4	107
44	Piezoelectric and dielectric tunabilities of ultra-thin ferroelectric heterostructures. <i>Journal of Materials Research</i> , 2006 , 21, 1600-1606	2.5	12
43	Simultaneous measurement of the piezoelectric and dielectric response of nanoscale ferroelectric capacitors by an atomic force microscopy based approach. <i>Applied Physics A: Materials Science and Processing</i> , 2006 , 84, 67-71	2.6	8
42	Misfit dislocations in nanoscale ferroelectric heterostructures. <i>Applied Physics Letters</i> , 2005 , 86, 192910	3.4	116
41	Scaling of the piezoelectric response in ferroelectric nanostructures: An effective clamping stress model. <i>Applied Physics Letters</i> , 2005 , 87, 242905	3.4	36
40	Improved PbZr _{0.52} Ti _{0.48} O ₃ film quality on SrRuO ₃ /SrTiO ₃ substrates. <i>Journal of Crystal Growth</i> , 2005 , 277, 210-217	1.6	11
39	Epitaxial Pb(Zr,Ti)O ₃ Capacitors on Si by Liquid Delivery Metalorganic Chemical Vapor Deposition. <i>Journal of Electroceramics</i> , 2005 , 14, 37-44	1.5	8
38	Finite element modeling of piezoresponse in nanostructured ferroelectric films. <i>Applied Physics Letters</i> , 2004 , 84, 2626-2628	3.4	65

37	Formation of 90° elastic domains during local 180° switching in epitaxial ferroelectric thin films. <i>Applied Physics Letters</i> , 2004 , 84, 254-256	3-4	48
36	Can interface dislocations degrade ferroelectric properties?. <i>Applied Physics Letters</i> , 2004 , 85, 2044-2046	3-4	144
35	Size effects in ultrathin epitaxial ferroelectric heterostructures. <i>Applied Physics Letters</i> , 2004 , 84, 5225-5227	3-4	100
34	Polarization switching of submicron ferroelectric capacitors using an atomic force microscope. <i>Applied Physics Letters</i> , 2004 , 84, 3130-3132	3-4	15
33	Dynamics of ferroelastic domains in ferroelectric thin films. <i>Nature Materials</i> , 2003 , 2, 43-7	27	457
32	Nanoshell tubes of ferroelectric lead zirconate titanate and barium titanate. <i>Applied Physics Letters</i> , 2003 , 83, 440-442	3-4	259
31	Ferroelectric Lead Zirconate Titanate and Barium Titanate Nanotubes. <i>Integrated Ferroelectrics</i> , 2003 , 59, 1513-1520	0.8	39
30	Epitaxial BiFeO ₃ multiferroic thin film heterostructures. <i>Science</i> , 2003 , 299, 1719-22	33-3	4944
29	Direct Domain Wall Thickness Measurement Using Scanning Nonlinear Dielectric Microscopy. <i>Ferroelectrics</i> , 2003 , 292, 171-180	0.6	2
28	Nonlinear electric field dependence of piezoresponse in epitaxial ferroelectric lead zirconate titanate thin films. <i>Journal of Applied Physics</i> , 2003 , 94, 5147	2.5	61
27	Controlling crystallization of Pb(Zr,Ti)O ₃ thin films on IrO ₂ electrodes at low temperature through interface engineering. <i>Applied Physics Letters</i> , 2003 , 82, 1263-1265	3-4	33
26	Ferroelectric field-effect transistor with a SrRuTi _{1-x} O ₃ channel. <i>Applied Physics Letters</i> , 2003 , 82, 4770-4772	3-4	39
25	Epitaxial La-doped SrTiO ₃ on silicon: A conductive template for epitaxial ferroelectrics on silicon. <i>Applied Physics Letters</i> , 2002 , 80, 4801-4803	3-4	51
24	Depth profile study of ferroelectric PbZr _{0.2} Ti _{0.8} O ₃ films. <i>Journal of Applied Physics</i> , 2002 , 92, 6762-6767	2.5	14
23	Depolarizing-field-mediated 180° switching in ferroelectric thin films with 90° domains. <i>Applied Physics Letters</i> , 2002 , 80, 1424-1426	3-4	94
22	Realizing intrinsic piezoresponse in epitaxial submicron lead zirconate titanate capacitors on Si. <i>Applied Physics Letters</i> , 2002 , 81, 4215-4217	3-4	105
21	Low-temperature integration of lead-based ferroelectric capacitors on Si with diffusion barrier layer. <i>Applied Physics Letters</i> , 2002 , 80, 3599-3601	3-4	32
20	Nanoscale Phenomena in Ferroelectric Thin Films. <i>Integrated Ferroelectrics</i> , 2002 , 42, 173-189	0.8	

19	Nanoscale phenomena in synthetic functional oxide heterostructures. <i>Microscopy and Microanalysis</i> , 2002 , 8, 333-49	0.5	7
18	Imaging three-dimensional polarization in epitaxial polydomain ferroelectric thin films. <i>Journal of Applied Physics</i> , 2002 , 91, 1477-1481	2.5	125
17	Near-field second harmonic imaging of the c/a/c/a polydomain structure of epitaxial PbZr _x Ti _(1-x) O ₃ thin films. <i>Journal of Microscopy</i> , 2001 , 202, 250-4	1.9	11
16	Polarization relaxation kinetics and 180° domain wall dynamics in ferroelectric thin films. <i>Physical Review B</i> , 2001 , 65,	3.3	163
15	Three-domain architecture of stress-free epitaxial ferroelectric films. <i>Journal of Applied Physics</i> , 2001 , 89, 553-556	2.5	83
14	Direct hysteresis measurements of single nanosized ferroelectric capacitors contacted with an atomic force microscope. <i>Applied Physics Letters</i> , 2001 , 79, 3678-3680	3.4	71
13	Control of domain structure of epitaxial PbZr _{0.2} Ti _{0.8} O ₃ thin films grown on vicinal (001) SrTiO ₃ substrates. <i>Applied Physics Letters</i> , 2001 , 79, 2805-2807	3.4	23
12	Direct observation of domain dynamics in lead zirconate titanate thin films. <i>Integrated Ferroelectrics</i> , 2001 , 32, 199-208	0.8	4
11	Domain nucleation and relaxation kinetics in ferroelectric thin films. <i>Applied Physics Letters</i> , 2000 , 77, 3275-3277	3.4	74
10	Role of 90° domains in lead zirconate titanate thin films. <i>Applied Physics Letters</i> , 2000 , 77, 292-294	3.4	151
9	Role of substrate on the dielectric and piezoelectric behavior of epitaxial lead magnesium niobate-lead titanate relaxor thin films. <i>Applied Physics Letters</i> , 2000 , 77, 438-440	3.4	97
8	Measurement of internal stresses via the polarization in epitaxial ferroelectric films. <i>Physical Review Letters</i> , 2000 , 85, 190-3	7.4	116
7	Analysis of thin PZT films as a function of depth and thickness by GIXS. <i>Integrated Ferroelectrics</i> , 2000 , 29, 127-141	0.8	3
6	Thickness dependence of structural and electrical properties in epitaxial lead zirconate titanate films. <i>Journal of Applied Physics</i> , 1999 , 86, 595-602	2.5	129
5	Effect of the electrode layer on the polydomain structure of epitaxial PbZr _{0.2} Ti _{0.8} O ₃ thin films. <i>Journal of Applied Physics</i> , 1999 , 85, 3271-3277	2.5	83
4	Effect of mechanical constraint on the dielectric and piezoelectric behavior of epitaxial Pb(Mg _{1/3} Nb _{2/3})O ₃ (90%)PbTiO ₃ (10%) relaxor thin films. <i>Applied Physics Letters</i> , 1999 , 75, 4183-4185	3.4	86
3	Epitaxial PMN-PT Relaxor Thin Films: Dependence of Dielectric and Piezoelectric Properties on Film Thickness. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 596, 505		
2	The Stress State and Domain Structure of Epitaxial PbZr _{0.2} Ti _{0.8} O ₃ Films on (001) SrTiO ₃ with and without La _{0.5} Sr _{0.5} CoO ₃ Electrode Layer. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 541, 357		

1 ZnS-GaP Solid Solution Thin Films with Enhanced Visible-Light Photocurrent. *ACS Applied Energy Materials*,

6.1 1