# Lane Martin

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#	Paper	IF	Citations
244	Above-bandgap voltages from ferroelectric photovoltaic devices. <i>Nature Nanotechnology</i> , <b>2010</b> , 5, 143-	<b>7</b> 28.7	1212
243	Electric-field control of local ferromagnetism using a magnetoelectric multiferroic. <i>Nature Materials</i> , <b>2008</b> , 7, 478-82	27	1099
242	Conduction at domain walls in oxide multiferroics. <i>Nature Materials</i> , <b>2009</b> , 8, 229-34	27	1048
241	A strain-driven morphotropic phase boundary in BiFeO3. <i>Science</i> , <b>2009</b> , 326, 977-80	33.3	956
240	Conformable amplified lead zirconate titanate sensors with enhanced piezoelectric response for cutaneous pressure monitoring. <i>Nature Communications</i> , <b>2014</b> , 5, 4496	17.4	571
239	Advances in the growth and characterization of magnetic, ferroelectric, and multiferroic oxide thin films. <i>Materials Science and Engineering Reports</i> , <b>2010</b> , 68, 89-133	30.9	501
238	Observation of polar vortices in oxide superlattices. <i>Nature</i> , <b>2016</b> , 530, 198-201	50.4	488
237	Leakage mechanisms in BiFeO3 thin films. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 072902	3.4	444
236	Photovoltaic effects in BiFeO3. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 062909	3.4	429
235	Electric modulation of conduction in multiferroic Ca-doped BiFeO3 films. <i>Nature Materials</i> , <b>2009</b> , 8, 485	-93	426
234	Photoconductivity in BiFeO3 thin films. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 091905	3.4	389
233	Thin-film ferroelectric materials and their applications. <i>Nature Reviews Materials</i> , <b>2017</b> , 2,	73.3	350
232	Critical thickness and orbital ordering in ultrathin La0.7Sr0.3MnO3 films. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	329
231	Interface ferromagnetism and orbital reconstruction in BiFeO3-La(0.7)Sr(0.3)MnO3 heterostructures. <i>Physical Review Letters</i> , <b>2010</b> , 105, 027201	7.4	311
230	Large field-induced strains in a lead-free piezoelectric material. <i>Nature Nanotechnology</i> , <b>2011</b> , 6, 98-102	28.7	271
229	Nanoscale control of exchange bias with BiFeO3 thin films. <i>Nano Letters</i> , <b>2008</b> , 8, 2050-5	11.5	254
228	Multiferroics and magnetoelectrics: thin films and nanostructures. <i>Journal of Physics Condensed Matter</i> , <b>2008</b> , 20, 434220	1.8	246

227	Nanoscale Domain Control in Multiferroic BiFeO3 Thin Films. <i>Advanced Materials</i> , <b>2006</b> , 18, 2307-2311	24	244
226	Observation of room-temperature polar skyrmions. <i>Nature</i> , <b>2019</b> , 568, 368-372	50.4	221
225	Domain Control in Multiferroic BiFeO3 through Substrate Vicinality. <i>Advanced Materials</i> , <b>2007</b> , 19, 2662	2-2666	216
224	Controlling magnetism with multiferroics. <i>Materials Today</i> , <b>2007</b> , 10, 16-23	21.8	214
223	Nanoscale control of domain architectures in BiFeO3 thin films. <i>Nano Letters</i> , <b>2009</b> , 9, 1726-30	11.5	188
222	Interface control of bulk ferroelectric polarization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 9710-5	11.5	187
221	Linear and nonlinear optical properties of BiFeO3. Applied Physics Letters, 2008, 92, 121915	3.4	183
220	Ferroelectric polarization reversal via successive ferroelastic transitions. <i>Nature Materials</i> , <b>2015</b> , 14, 79-	-8.67	175
219	Intrinsic Two-Dimensional Ferroelectricity with Dipole Locking. <i>Physical Review Letters</i> , <b>2018</b> , 120, 2276	60 <del>/</del> 1.4	170
218	Ferroelectric size effects in multiferroic BiFeO3 thin films. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 252906	3.4	167
217	Predicting synthesizability. Journal Physics D: Applied Physics, 2019, 52,	3	161
216	Multiferroic and magnetoelectric heterostructures. <i>Acta Materialia</i> , <b>2012</b> , 60, 2449-2470	8.4	158
215	Pyroelectric energy conversion with large energy and power density in relaxor ferroelectric thin films. <i>Nature Materials</i> , <b>2018</b> , 17, 432-438	27	132
214	Nanoscale structure and mechanism for enhanced electromechanical response of highly Strained BiFeO3 thin films. <i>Advanced Materials</i> , <b>2011</b> , 23, 3170-5	24	130
213	Optical properties and magnetochromism in multiferroic BiFeO3. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	130
212	Effect of growth induced (non)stoichiometry on interfacial conductance in LaAlO3/SrTiO3. <i>Physical Review Letters</i> , <b>2013</b> , 110, 196804	7.4	124
211	Magnetotransport at domain walls in BiFeO3. <i>Physical Review Letters</i> , <b>2012</b> , 108, 067203	7.4	120
210	Phase coexistence and electric-field control of toroidal order in oxide superlattices. <i>Nature Materials</i> , <b>2017</b> , 16, 1003-1009	27	108

209	Ferroelectrically driven spatial carrier density modulation in graphene. <i>Nature Communications</i> , <b>2015</b> , 6, 6136	17.4	107
208	Enhancement of ferroelectric Curie temperature in BaTiO3 films via strain-induced defect dipole alignment. <i>Advanced Materials</i> , <b>2014</b> , 26, 6341-7	24	101
207	Room temperature exchange bias and spin valves based on BiFeO3BrRuO3BrTiO3Bi (001) heterostructures. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 172513	3.4	98
206	Effect of Growth Induced (Non)Stoichiometry on the Structure, Dielectric Response, and Thermal Conductivity of SrTiO3 Thin Films. <i>Chemistry of Materials</i> , <b>2012</b> , 24, 331-337	9.6	95
205	Low voltage performance of epitaxial BiFeO3 films on Si substrates through lanthanum substitution. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 102909	3.4	89
204	Tunable carrier type and density in graphene/PbZr0.2Ti0.8O3 hybrid structures through ferroelectric switching. <i>Nano Letters</i> , <b>2013</b> , 13, 1693-8	11.5	88
203	Stability of Polar Vortex Lattice in Ferroelectric Superlattices. <i>Nano Letters</i> , <b>2017</b> , 17, 2246-2252	11.5	85
202	Highly mobile ferroelastic domain walls in compositionally graded ferroelectric thin films. <i>Nature Materials</i> , <b>2016</b> , 15, 549-56	27	85
201	Advanced synthesis techniques and routes to new single-phase multiferroics. <i>Current Opinion in Solid State and Materials Science</i> , <b>2012</b> , 16, 199-215	12	84
200	Ultrahigh capacitive energy density in ion-bombarded relaxor ferroelectric films. <i>Science</i> , <b>2020</b> , 369, 81	<b>-8<del>/</del></b> 3.3	82
199	Thermoreflectance of metal transducers for optical pump-probe studies of thermal properties. <i>Optics Express</i> , <b>2012</b> , 20, 28829-38	3.3	81
198	Adsorption-controlled molecular-beam epitaxial growth of BiFeO3. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 071922	3.4	80
197	Direct Observation of Capacitor Switching Using Planar Electrodes. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 3466-3475	15.6	76
196	Near-field examination of perovskite-based superlenses and superlens-enhanced probe-object coupling. <i>Nature Communications</i> , <b>2011</b> , 2, 249	17.4	74
195	Emergent chirality in the electric polarization texture of titanate superlattices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 915-920	11.5	73
194	Stationary domain wall contribution to enhanced ferroelectric susceptibility. <i>Nature Communications</i> , <b>2014</b> , 5, 3120	17.4	70
193	Magnon sidebands and spin-charge coupling in bismuth ferrite probed by nonlinear optical spectroscopy. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	69
192	Probing the evolution of antiferromagnetism in multiferroics. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	68

# (2010-2015)

191	Polarization screening-induced magnetic phase gradients at complex oxide interfaces. <i>Nature Communications</i> , <b>2015</b> , 6, 6735	17.4	64
190	Unexpected crystal and domain structures and properties in compositionally graded PbZr(1-x)Ti(x)O3 thin films. <i>Advanced Materials</i> , <b>2013</b> , 25, 1761-7	24	63
189	Microwave a.c. conductivity of domain walls in ferroelectric thin films. <i>Nature Communications</i> , <b>2016</b> , 7, 11630	17.4	63
188	Effect of domain walls on the electrocaloric properties of Pb(Zr1¼,Tix)O3 thin films. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 032904	3.4	62
187	Optical creation of a supercrystal with three-dimensional nanoscale periodicity. <i>Nature Materials</i> , <b>2019</b> , 18, 377-383	27	61
186	Temperature and thickness evolution and epitaxial breakdown in highly strained BiFeO3 thin films. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	61
185	Improved pyroelectric figures of merit in compositionally graded PbZr1-xTixO3 thin films. <i>ACS Applied Materials &amp; Discourse (Materials &amp; Discourse)</i> 13235-41	9.5	61
184	New modalities of strain-control of ferroelectric thin films. <i>Journal of Physics Condensed Matter</i> , <b>2016</b> , 28, 263001	1.8	61
183	Quantification of flexoelectricity in PbTiO/SrTiO superlattice polar vortices using machine learning and phase-field modeling. <i>Nature Communications</i> , <b>2017</b> , 8, 1468	17.4	60
182	Epitaxial ferroelectric heterostructures fabricated by selective area epitaxy of SrRuO3 using an MgO mask. <i>Advanced Materials</i> , <b>2012</b> , 24, 1610-5	24	58
181	Orientation-dependent potential barriers in case of epitaxial Pt <b>B</b> iFeO3 <b>B</b> rRuO3 capacitors. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 232902	3.4	56
180	Thermal conductivity as a metric for the crystalline quality of SrTiO3 epitaxial layers. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 221904	3.4	55
179	Synthesis, control, and characterization of surface properties of CuD nanostructures. <i>ACS Nano</i> , <b>2011</b> , 5, 3736-43	16.7	55
178	Ultrafast terahertz-field-driven ionic response in ferroelectric BaTiO3. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	54
177	Thickness-dependent crossover from charge- to strain-mediated magnetoelectric coupling in ferromagnetic/piezoelectric oxide heterostructures. <i>ACS Nano</i> , <b>2014</b> , 8, 894-903	16.7	54
176	Three-State Ferroelastic Switching and Large Electromechanical Responses in PbTiO Thin Films. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702069	24	53
175	Effect of Symmetry mismatchIbn the domain structure of rhombohedral BiFeO3 thin films. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 182908	3.4	53
174	Engineering functionality in the multiferroic BiFeO3controlling chemistry to enable advanced applications. <i>Dalton Transactions</i> , <b>2010</b> , 39, 10813-26	4.3	53

173	Ultrathin limit of exchange bias coupling at oxide multiferroic/ferromagnetic interfaces. <i>Advanced Materials</i> , <b>2013</b> , 25, 4739-45	24	51	
172	Pyroelectric properties of polydomain epitaxial Pb(Zr1¼,Tix)O3 thin films. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	51	
171	180º Ferroelectric Stripe Nanodomains in BiFeO3 Thin Films. <i>Nano Letters</i> , <b>2015</b> , 15, 6506-13	11.5	49	
170	Resonant domain-wall-enhanced tunable microwave ferroelectrics. <i>Nature</i> , <b>2018</b> , 560, 622-627	50.4	48	
169	The dependence of oxygen vacancy distributions in BiFeO3 films on oxygen pressure and substrate. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 012904	3.4	48	
168	Effect of 90°domain walls and thermal expansion mismatch on the pyroelectric properties of epitaxial PbZr0.2Ti0.8O3 thin films. <i>Physical Review Letters</i> , <b>2012</b> , 109, 257602	7.4	48	
167	Effect of 90 <sup>®</sup> domain walls on the low-field permittivity of PbZr(0.2)Ti(0.8)O3 thin films. <i>Physical Review Letters</i> , <b>2012</b> , 108, 167601	7.4	48	
166	Growth and structure of PbVO3 thin films. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 062903	3.4	45	
165	Direct Measurement of Pyroelectric and Electrocaloric Effects in Thin Films. <i>Physical Review Applied</i> , <b>2017</b> , 7,	4.3	44	
164	Electron Accumulation and Emergent Magnetism in LaMnO_{3}/SrTiO_{3} Heterostructures. <i>Physical Review Letters</i> , <b>2017</b> , 119, 156801	7.4	44	
163	Thermal conductance of strongly bonded metal-oxide interfaces. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	44	
162	Large polarization gradients and temperature-stable responses in compositionally-graded ferroelectrics. <i>Nature Communications</i> , <b>2017</b> , 8, 14961	17.4	43	
161	Large built-in electric fields due to flexoelectricity in compositionally graded ferroelectric thin films. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	42	
160	Nonstoichiometry, Structure, and Properties of BiFeO3 Films. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 5952-59	<b>63</b> .6	42	
159	Spin-charge-lattice coupling through resonant multimagnon excitations in multiferroic BiFeO3. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 161905	3.4	41	
158	Epitaxial Multiferroic BiFeO3 Thin Films: Progress and Future Directions. Ferroelectrics, 2007, 354, 167-	17376	41	
157	Interfacial Octahedral Rotation Mismatch Control of the Symmetry and Properties of SrRuO3. <i>ACS Applied Materials &amp; District Materials </i>	9.5	39	
156	New approach to waste-heat energy harvesting: pyroelectric energy conversion. <i>NPG Asia Materials</i> , <b>2019</b> , 11,	10.3	38	

# (2013-2016)

155	Self-Assembled, Nanostructured, Tunable Metamaterials via Spinodal Decomposition. <i>ACS Nano</i> , <b>2016</b> , 10, 10237-10244	16.7	37	
154	Effects of nonequilibrium growth, nonstoichiometry, and film orientation on the metal-to-insulator transition in NdNiOIthin films. ACS Applied Materials & Interfaces, 2014, 6, 22436-44	9.5	37	
153	Polar and magnetic properties of PbVO3 thin films. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	36	
152	Enhanced Electrical Resistivity and Properties via Ion Bombardment of Ferroelectric Thin Films. <i>Advanced Materials</i> , <b>2016</b> , 28, 10750-10756	24	36	
151	Direct observation of ferroelectric domain switching in varying electric field regimes using in situ TEM. <i>Micron</i> , <b>2012</b> , 43, 1121-6	2.3	35	
150	Switching kinetics in epitaxial BiFeO3 thin films. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 084111	2.5	35	
149	Self-regulated growth of LaVO3 thin films by hybrid molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 233102	3.4	34	
148	Ultrafast Terahertz Gating of the Polarization and Giant Nonlinear Optical Response in BiFeO3 Thin Films. <i>Advanced Materials</i> , <b>2015</b> , 27, 6371-5	24	34	
147	Recent Progress on Topological Structures in Ferroic Thin Films and Heterostructures. <i>Advanced Materials</i> , <b>2021</b> , 33, e2000857	24	34	
146	Complex Evolution of Built-in Potential in Compositionally-Graded PbZr(1-x)Ti(x)O3 Thin Films. <i>ACS Nano</i> , <b>2015</b> , 9, 7332-42	16.7	33	
145	Enhanced electrocaloric and pyroelectric response from ferroelectric multilayers. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 052901	3.4	33	
144	Local negative permittivity and topological phase transition in polar skyrmions. <i>Nature Materials</i> , <b>2021</b> , 20, 194-201	27	33	
143	High-frequency thermal-electrical cycles for pyroelectric energy conversion. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 194509	2.5	30	
142	Nanodomain Engineering in Ferroelectric Capacitors with Graphene Electrodes. <i>Nano Letters</i> , <b>2016</b> , 16, 6460-6466	11.5	30	
141	Complex strain evolution of polar and magnetic order in multiferroic BiFeO thin films. <i>Nature Communications</i> , <b>2018</b> , 9, 3764	17.4	30	
140	Ambipolar ferromagnetism by electrostatic doping of a manganite. <i>Nature Communications</i> , <b>2018</b> , 9, 1897	17.4	30	
139	Pyroelectric current measurements on PbZr0.2Ti0.8O3 epitaxial layers. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 104106	2.5	29	
138	Strong Visible-Light Absorption and Hot-Carrier Injection in TiO2/SrRuO3 Heterostructures.  Advanced Energy Materials, 2013, 3, 1084-1090	21.8	29	

137	Kinetic control of tunable multi-state switching in ferroelectric thin films. <i>Nature Communications</i> , <b>2019</b> , 10, 1282	17.4	28
136	Strain evolution in non-stoichiometric heteroepitaxial thin-film perovskites. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 8052	7.1	28
135	Experimental Demonstration of Ferroelectric Spiking Neurons for Unsupervised Clustering 2018,		28
134	Orientation-dependent structural phase diagrams and dielectric properties of PbZr1\(\mathbb{Z}\)TixO3 polydomain thin films. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	27
133	Differential voltage amplification from ferroelectric negative capacitance. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 253501	3.4	27
132	Reduction of the electrocaloric entropy change of ferroelectric PbZr1\(\mathbb{Z}\)TixO3 epitaxial layers due to an elastocaloric effect. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	26
131	Pressurizing Field-Effect Transistors of Few-Layer MoS in a Diamond Anvil Cell. <i>Nano Letters</i> , <b>2017</b> , 17, 194-199	11.5	25
130	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
129	Enhanced Thermoelectric Power Factor of NaxCoO2 Thin Films by Structural Engineering. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1301927	21.8	25
128	Reducing Coercive-Field Scaling in Ferroelectric Thin Films via Orientation Control. <i>ACS Nano</i> , <b>2018</b> , 12, 4736-4743	16.7	24
127	Towards reversible control of domain wall conduction in Pb(Zr0.2Ti0.8)O3 thin films. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 162902	3.4	23
126	Linear and nonlinear optical properties of multifunctional PbVO3 thin films. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 231915	3.4	23
125	Single gate p-n junctions in graphene-ferroelectric devices. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 203109	3.4	23
124	Pyroelectric and electrocaloric effects in ferroelectric silicon-doped hafnium oxide thin films. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	22
123	Understanding the Role of Ferroelastic Domains on the Pyroelectric and Electrocaloric Effects in Ferroelectric Thin Films. <i>Advanced Materials</i> , <b>2019</b> , 31, e1803312	24	22
122	Electronic Transport and Ferroelectric Switching in Ion-Bombarded, Defect-Engineered BiFeO3 Thin Films. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1700991	4.6	22
121	Ultralow Voltage Manipulation of Ferromagnetism. Advanced Materials, 2020, 32, e2001943	24	21
120	Revealing ferroelectric switching character using deep recurrent neural networks. <i>Nature Communications</i> , <b>2019</b> , 10, 4809	17.4	21

119	Accessing intermediate ferroelectric switching regimes with time-resolved transmission electron microscopy. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 052013	2.5	21	
118	Local control of defects and switching properties in ferroelectric thin films. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	21	
117	Perspective: Emergent topologies in oxide superlattices. APL Materials, 2018, 6, 100901	5.7	21	
116	Epitaxial Strain Control of Relaxor Ferroelectric Phase Evolution. <i>Advanced Materials</i> , <b>2019</b> , 31, e19010	6 <b>0</b> 4	20	
115	Strain-induced growth instability and nanoscale surface patterning in perovskite thin films. <i>Scientific Reports</i> , <b>2016</b> , 6, 26075	4.9	20	
114	Light-Induced Currents at Domain Walls in Multiferroic BiFeO. <i>Nano Letters</i> , <b>2020</b> , 20, 145-151	11.5	20	
113	Magnon spectra and strong spin-lattice coupling in magnetically frustrated MnB2O4 (B=Mn,V): Inelastic light-scattering studies. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	19	
112	Enhanced photoelectrochemical activity in all-oxide heterojunction devices based on correlated "metallic" oxides. <i>Advanced Materials</i> , <b>2013</b> , 25, 6201-6	24	19	
111	Ferroelectricity in Pb1+@rO3 Thin Films. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 6544-6551	9.6	19	
110	Epitaxial growth of highly-crystalline spinel ferrite thin films on perovskite substrates for all-oxide devices. <i>Scientific Reports</i> , <b>2015</b> , 5, 10363	4.9	19	
109	Manipulating magnetoelectric energy landscape in multiferroics. <i>Nature Communications</i> , <b>2020</b> , 11, 283	3 <b>6</b> 17.4	18	
108	Understanding order in compositionally graded ferroelectrics: Flexoelectricity, gradient, and depolarization field effects. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	18	
107	Secondary effects in wide frequency range measurements of the pyroelectric coefficient of Ba0.6Sr0.4TiO3 and PbZr0.2Ti0.8O3 epitaxial layers. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	18	
106	Couplings of Polarization with Interfacial Deep Trap and Schottky Interface Controlled Ferroelectric Memristive Switching. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2000664	15.6	18	
105	Toward Intrinsic Ferroelectric Switching in Multiferroic BiFeO_{3}. <i>Physical Review Letters</i> , <b>2020</b> , 125, 067601	7.4	18	
104	Mapping growth windows in quaternary perovskite oxide systems by hybrid molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 101903	3.4	18	
103	The role of ceramic and glass science research in meeting societal challenges: Report from an NSF-sponsored workshop. <i>Journal of the American Ceramic Society</i> , <b>2017</b> , 100, 1777-1803	3.8	17	
102	Versatile and Highly Efficient Controls of Reversible Topotactic Metal <b>I</b> hsulator Transitions through Proton Intercalation. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1907072	15.6	17	

101	Emergence of the Vortex State in Confined Ferroelectric Heterostructures. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901014	24	17
100	Designing Optimal Perovskite Structure for High Ionic Conduction. <i>Advanced Materials</i> , <b>2020</b> , 32, e19051	<i>Σ</i> 7β	17
99	Beyond Substrates: Strain Engineering of Ferroelectric Membranes. <i>Advanced Materials</i> , <b>2020</b> , 32, e2003.	<b>7</b> .80	17
98	Defect-Enhanced Polarization Switching in the Improper Ferroelectric LuFeO. <i>Advanced Materials</i> , <b>2020</b> , 32, e2000508	24	16
97	Giant Superelastic Piezoelectricity in Flexible Ferroelectric BaTiO Membranes. ACS Nano, 2020, 14, 5053-	<del>50</del> 60	16
96	Chemical Phenomena of Atomic Force Microscopy Scanning. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 3475-3481	7.8	16
95	Orientation-dependent properties of epitaxially strained perovskite oxide thin films: Insights from first-principles calculations. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	16
94	Effect of growth induced (non)stoichiometry on the thermal conductivity, permittivity, and dielectric loss of LaAlO3 films. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 082901	3.4	16
93	Surface, bulk, and interface electronic states of epitaxial BiFeO3 films. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2009</b> , 27, 2012		16
92	Frontiers in strain-engineered multifunctional ferroic materials. MRS Communications, 2016, 6, 151-166	2.7	15
91	Stabilization of mixed-phase structures in highly strained BiFeO3 thin films via chemical-alloying. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 082904	3.4	15
90	Subterahertz collective dynamics of polar vortices. <i>Nature</i> , <b>2021</b> , 592, 376-380	50.4	15
89	Real-time observation of local strain effects on nonvolatile ferroelectric memory storage mechanisms. <i>Nano Letters</i> , <b>2014</b> , 14, 3617-22	11.5	14
88	Atomic and electronic structures of the SrVO3-LaAlO3 interface. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 046104	2.5	14
87	Machine Detection of Enhanced Electromechanical Energy Conversion in PbZr Ti O Thin Films. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800701	24	14
86	Slow Conductance Relaxation in Graphene Eerroelectric Field-Effect Transistors. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 7542-7548	3.8	13
85	X-ray linear dichroism dependence on ferroelectric polarization. <i>Journal of Physics Condensed Matter</i> , <b>2012</b> , 24, 245902	1.8	12
84	A new era in ferroelectrics. <i>APL Materials</i> , <b>2020</b> , 8, 120902	5.7	12

## (2013-2016)

83	and Microscale Thermophysical Engineering, <b>2016</b> , 20, 137-146	3.7	12
82	Epitaxial Ferroelectric Hf Zr O with Metallic Pyrochlore Oxide Electrodes. <i>Advanced Materials</i> , <b>2021</b> , 33, e2006089	24	12
81	Nanoscale Electrochemical Phenomena of Polarization Switching in Ferroelectrics. <i>ACS Applied Materials &amp; Acs Applied &amp; Acs Appl</i>	9.5	12
80	Phonon-induced near-field resonances in multiferroic BiFeO3 thin films at infrared and THz wavelengths. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 071103	3.4	11
79	Magnetically disordered phase in epitaxial iron-deficient Fe3O4 thin films. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	11
78	Tunability of conduction at the LaAlO3/SrTiO3 heterointerface: Thickness and compositional studies. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 121610	3.4	11
77	Tuning Susceptibility via Misfit Strain in Relaxed Morphotropic Phase Boundary PbZr1-xTixO3 Epitaxial Thin Films. <i>Advanced Materials Interfaces</i> , <b>2014</b> , 1, 1400098	4.6	11
76	High-temperature piezoresponse force microscopy. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 173103	3.4	11
75	Electronic Structure and Band Alignment of LaMnO3/SrTiO3 Polar/Nonpolar Heterojunctions. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1801428	4.6	11
74	Piezoresponse amplitude and phase quantified for electromechanical characterization. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 171105	2.5	10
73	Integration of amorphous ferromagnetic oxides with multiferroic materials for room temperature magnetoelectric spintronics. <i>Scientific Reports</i> , <b>2020</b> , 10, 3583	4.9	10
7 <sup>2</sup>	Understanding the Competition between Epitaxial Strain and Thermodynamics in TiO2: Structural, Morphological, and Property Evolution. <i>Crystal Growth and Design</i> , <b>2014</b> , 14, 1981-1988	3.5	10
71	Visible light carrier generation in co-doped epitaxial titanate films. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 092901	3.4	10
70	Enhanced spontaneous polarization in double perovskite Bi2FeCrO6 films. <i>Journal of the American Ceramic Society</i> , <b>2019</b> , 102, 5234-5242	3.8	10
69	Defect-Induced (Dis)Order in Relaxor Ferroelectric Thin Films. <i>Physical Review Letters</i> , <b>2019</b> , 123, 2076	02 <sub>7.4</sub>	10
68	Quantifying Intrinsic, Extrinsic, Dielectric, and Secondary Pyroelectric Responses in PbZrTiO Thin Films. <i>ACS Applied Materials &amp; amp; Interfaces</i> , <b>2019</b> , 11, 35146-35154	9.5	9
67	Surface Chemically Switchable Ultraviolet Luminescence from Interfacial Two-Dimensional Electron Gas. <i>Nano Letters</i> , <b>2016</b> , 16, 681-7	11.5	9
66	Field emission from nanometer-scale tips of crystalline PbZrxTi1\(\mathbb{B}\)O3. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 021805	1.3	9

65	Magnetoelectric complex-oxide heterostructures. <i>Philosophical Magazine Letters</i> , <b>2007</b> , 87, 155-164	1	9
64	Vortex Domain Walls in Ferroelectrics. <i>Nano Letters</i> , <b>2021</b> , 21, 3533-3539	11.5	9
63	Enhanced pyroelectric properties of Bi1\( \text{BLaxFeO3} \) thin films. APL Materials, 2019, 7, 111111	5.7	9
62	Relaxor Behavior in Ordered Lead Magnesium Niobate (PbMg1/3Nb2/3O3) Thin Films. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1804258	15.6	9
61	Ultrafast collective oxygen-vacancy flow in Ca-doped BiFeO3. NPG Asia Materials, 2018, 10, 943-955	10.3	9
60	Epitaxy on polycrystalline substrates. <i>Science</i> , <b>2017</b> , 358, 587-588	33.3	8
59	Large Polarization and Susceptibilities in Artificial Morphotropic Phase Boundary PbZr1\(\mathbb{Z}\)TixO3 Superlattices. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1901395	6.4	8
58	Asymmetric Response of Ferroelastic Domain-Wall Motion under Applied Bias. <i>ACS Applied Materials &amp; ACS Applied Materials &amp; ACS Applied</i>	9.5	8
57	Pyroelectric electron emission from nanometer-thick films of PbZrxTi1⊠O3. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 192908	3.4	8
56	Full Control of Polarization in Ferroelectric Thin Films Using Growth Temperature to Modulate Defects. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000852	6.4	8
55	Single Crystal Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 1. SrTiO3(001). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 87-94	1.2	7
54	Exploring the Pb Sr HfO System and Potential for High Capacitive Energy Storage Density and Efficiency. <i>Advanced Materials</i> , <b>2021</b> , e2105967	24	7
53	Searching for New Ferroelectric Materials Using High-Throughput Databases: An Experimental Perspective on BiAlO3 and BiInO3. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 7274-7283	9.6	7
52	Pyroelectric thin filmsPast, present, and future. APL Materials, 2021, 9, 010702	5.7	7
51	Nonstoichiometry, structure, and properties of Ba1 $\blacksquare$ TiOy thin films. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 10751-10759	7.1	7
50	A novel, layered phase in Ti-rich SrTiO3 epitaxial thin films. <i>Advanced Materials</i> , <b>2015</b> , 27, 861-8	24	6
49	Subtractive fabrication of ferroelectric thin films with precisely controlled thickness. <i>Nanotechnology</i> , <b>2018</b> , 29, 155302	3.4	6
48	Electric field control of chirality <i>Science Advances</i> , <b>2022</b> , 8, eabj8030	14.3	6

47	Local Probe Comparison of Ferroelectric Switching Event Statistics in the Creep and Depinning Regimes in Pb(Zr_{0.2}Ti_{0.8})O_{3} Thin Films. <i>Physical Review Letters</i> , <b>2021</b> , 126, 117601	7.4	6
46	To switch or not to switch has machine learning approach for ferroelectricity. <i>Nanoscale Advances</i> , <b>2020</b> , 2, 2063-2072	5.1	6
45	The role of lattice dynamics in ferroelectric switching Nature Communications, 2022, 13, 1110	17.4	6
44	Finite-size effects in lead scandium tantalate relaxor thin films. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	5
43	Correlating Surface Crystal Orientation and Gas Kinetics in Perovskite Oxide Electrodes. <i>Advanced Materials</i> , <b>2021</b> , 33, e2100977	24	5
42	Ferroelectric properties of ion-irradiated bismuth ferrite layers grown via molecular-beam epitaxy. <i>APL Materials</i> , <b>2019</b> , 7, 111101	5.7	5
41	Electronic and Polar Properties of Vanadate Compounds Stabilized by Epitaxial Strain. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 5870-5877	9.6	4
40	Electric field control of magnetism: multiferroics and magnetoelectrics. <i>Rivista Del Nuovo Cimento</i> , <b>2021</b> , 44, 251-289	3.5	4
39	X-ray diffraction studies of stripelike ferroelectric domains in thin films of BiFeO3. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	3
38	Structural phase diagram and pyroelectric properties of free-standing ferroelectric/non-ferroelectric multilayer heterostructures. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 24410	<del>2</del> .5	3
37	Strain-Induced Orbital Contributions to Oxygen Electrocatalysis in Transition-Metal Perovskites. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2102175	21.8	3
36	Structural imaging of nanoscale phonon transport in ferroelectrics excited by metamaterial-enhanced terahertz fields. <i>Physical Review Materials</i> , <b>2017</b> , 1,	3.2	3
35	Frequency-dependent suppression of field-induced polarization rotation in relaxor ferroelectric thin films. <i>Matter</i> , <b>2021</b> , 4, 2367-2377	12.7	3
34	Thin-film Ferroelectrics Advanced Materials, 2022, e2108841	24	3
33	Platinum nanoparticle induced nanoionic effects on electrical conduction in strontium cerate and zirconate. <i>Journal of Solid State Electrochemistry</i> , <b>2019</b> , 23, 953-963	2.6	2
32	Strain-Driven Nanoscale Phase Competition near the Antipolar-Nonpolar Phase Boundary in BiLaFeO Thin Films. <i>ACS Applied Materials &amp; Diterfaces</i> , <b>2018</b> , 10, 14914-14921	9.5	2
31	Emerging Multiferroic Memories <b>2014</b> , 103-166		2
30	Single Crystal Rare-earth Scandate Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 3. GdScO3(110). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 149-156	1.2	2

29	An Introduction to Single Crystal Perovskites and Single Crystal Rare-Earth Scandate Perovskites Analyzed Using X-ray Photoelectron Spectroscopy. <i>Surface Science Spectra</i> , <b>2014</b> , 21, 84-86	1.2	2
28	Single Crystal Rare-earth Scandate Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 2. NdScO3(110). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 140-148	1.2	2
27	Single Crystal Rare-earth Scandate Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 4. TbScO3(110). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 157-164	1.2	2
26	Single Crystal Rare-earth Scandate Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 5. DyScO3(110). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 165-172	1.2	2
25	Low-Voltage Magnetoelectric Coupling in Fe0.5Rh0.5/0.68PbMg1/3Nb2/3O3-0.32PbTiO3 Thin-Film Heterostructures. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2105068	15.6	2
24	Emergent chirality in a polar meron to skyrmion transition revealed by 4D-STEM. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 348-350	0.5	2
23	Growth mode and strain effect on relaxor ferroelectric domains in epitaxial 0.67Pb(MgNb)O-0.33PbTiO/SrRuO heterostructures <i>RSC Advances</i> , <b>2021</b> , 11, 1222-1232	3.7	2
22	Probing Metastable Domain Dynamics Automated Experimentation in Piezoresponse Force Microscopy. <i>ACS Nano</i> , <b>2021</b> , 15, 15096-15103	16.7	2
21	Observation of solid-state bidirectional thermal conductivity switching in antiferroelectric lead zirconate (PbZrO) <i>Nature Communications</i> , <b>2022</b> , 13, 1573	17.4	2
20	In situ Electric Field Manipulation of Ferroelectric Vortices. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 184	14 <del>-</del> 1. <b>§</b> 45	5 1
19	Single Crystal Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 2. YAlO3(110). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 95-102	1.2	1
18	Single Crystal Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 3. LaAlO3(001). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 103-111	1.2	1
17	Single Crystal Rare-earth Scandate Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 1. PrScO3(110). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 131-139	1.2	1
16	Tunable Nanoscale Evolution and Topological Phase Transitions of a Polar Vortex Supercrystal <i>Advanced Materials</i> , <b>2021</b> , e2106401	24	1
15	A Predictive Theory for Domain Walls in Oxide Ferroelectrics Based on Interatomic Interactions and its Implications for Collective Material Properties. <i>Advanced Materials</i> , <b>2021</b> , e2106021	24	1
14	Phase Coexistence of Ferroelectric Vortices and Classical a1/a2 Domains in PbTiO3/SrTiO3 Superlattices <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 1638-1639	0.5	1
13	Single Crystal Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 4. (LaAlO3)0.3(Sr2TaAlO6)0.7(001). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 112-121	1.2	0
12	Single Crystal Perovskites Analyzed Using X-ray Photoelectron Spectroscopy: 5. NdGaO3(110). <i>Surface Science Spectra</i> , <b>2014</b> , 21, 122-130	1.2	O

#### LIST OF PUBLICATIONS

11	Atomic scale crystal field mapping of polar vortices in oxide superlattices. <i>Nature Communications</i> , <b>2021</b> , 12, 6273	17.4	O
10	Non-linearity in engineered lead magnesium niobate (PbMg1/3Nb2/3O3) thin films. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 194102	2.5	O
9	Beyond Expectation: Advanced Materials Design, Synthesis, and Processing to Enable Novel Ferroelectric Properties and Applications. <i>MRS Advances</i> , <b>2020</b> , 5, 3453-3472	0.7	О
8	Whirls and swirls of polarization. <i>Science</i> , <b>2021</b> , 371, 992-993	33.3	O
7	Chiral structures of electric polarization vectors quantified by X-ray resonant scattering <i>Nature Communications</i> , <b>2022</b> , 13, 1769	17.4	0
6	Tunable Microwave Conductance of Nanodomains in Ferroelectric PbZr 0.2 Ti 0.8 O 3 Thin Film. <i>Advanced Electronic Materials</i> , <b>2022</b> , 8, 2100952	6.4	0
5	Quantitative Mapping of Strain, Polarization, and Octahedral Distortion at unit cell resolution by Scanning Electron Diffraction. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 434-435	0.5	
4	Toward Deterministic Switching in Ferroelectric Systems: Insight Gained from In Situ TEM. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 1347-1348	0.5	
3	Nanosession: Ferroelectric Interfaces <b>2013</b> , 399-408		
2	Exciting new insight into the prototype complex oxide heterointerface: LaAlO3 / SrTiO3 (A Perspective on: L. Qiao, T. C. Droubay, T. C. Kaspar, P. V. Sushko, S. A. Chambers, Surf. Sci. (2011) 1381. <i>Surface Science</i> , <b>2011</b> , 605, 1388-1389	1.8	
1	Note: electrical and thermal characterization of a ferroelectric thin film with an electro-thermal nanoprobe. <i>Review of Scientific Instruments</i> , <b>2012</b> , 83, 076105	1.7	