

Anoop R Damodaran

List of Publications by Year in descending order

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papers

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126858

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docs citations

47
times ranked

3781
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of polar vortices in oxide superlattices. Nature, 2016, 530, 198-201.	13.7	682
2	Ferroelectric polarization reversal via successive ferroelastic transitions. Nature Materials, 2015, 14, 79-86.	13.3	216
3	Phase coexistence and electric-field control of toroidal order in oxide superlattices. Nature Materials, 2017, 16, 1003-1009.	13.3	159
4	Nanoscale Structure and Mechanism for Enhanced Electromechanical Response of Highly Strained BiFeO ₃ Thin Films. Advanced Materials, 2011, 23, 3170-3175.	11.1	138
5	Enhancement of Ferroelectric Curie Temperature in BaTiO ₃ Films via Strain-Induced Defect Dipole Alignment. Advanced Materials, 2014, 26, 6341-6347.	11.1	134
6	Stability of Polar Vortex Lattice in Ferroelectric Superlattices. Nano Letters, 2017, 17, 2246-2252.	4.5	131
7	Emergent chirality in the electric polarization texture of titanate superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 915-920.	3.3	121
8	Optical creation of a supercrystal with three-dimensional nanoscale periodicity. Nature Materials, 2019, 18, 377-383.	13.3	105
9	Highly mobile ferroelastic domain walls in compositionally graded ferroelectric thin films. Nature Materials, 2016, 15, 549-556.	13.3	98
10	Quantification of flexoelectricity in PbTiO ₃ /SrTiO ₃ superlattice polar vortices using machine learning and phase-field modeling. Nature Communications, 2017, 8, 1468.	5.8	93
11	New modalities of strain-control of ferroelectric thin films. Journal of Physics Condensed Matter, 2016, 28, 263001.	0.7	86
12	Stationary domain wall contribution to enhanced ferroelectric susceptibility. Nature Communications, 2014, 5, 3120.	5.8	85
13	Resonant domain-wall-enhanced tunable microwave ferroelectrics. Nature, 2018, 560, 622-627.	13.7	82
14	Improved Pyroelectric Figures of Merit in Compositionally Graded PbZr _{1-x} Ti _x O ₃ Thin Films. ACS Applied Materials & Interfaces, 2013, 5, 13235-13241.	4.0	76
15	Three-State Ferroelastic Switching and Large Electromechanical Responses in PbTiO ₃ Thin Films. Advanced Materials, 2017, 29, 1702069.	11.1	74
16	Unexpected Crystal and Domain Structures and Properties in Compositionally Graded PbZr _{1-x} Ti _x O ₃ Thin Films. Advanced Materials, 2013, 25, 1761-1767.	11.1	73
17	Polarization screening-induced magnetic phase gradients at complex oxide interfaces. Nature Communications, 2015, 6, 6735.	5.8	71
18	Temperature and thickness evolution and epitaxial breakdown in highly strained BiFeO ₃ thin films. Physical Review B, 2012, 85, .	1.1	65

#	ARTICLE	IF	CITATIONS
19	Epitaxial Ferroelectric Heterostructures Fabricated by Selective Area Epitaxy of SrRuO ₃ Using an MgO Mask. <i>Advanced Materials</i> , 2012, 24, 1610-1615.	11.1	65
20	Effect of ϵ -symmetry mismatch on the domain structure of rhombohedral BiFeO ₃ thin films. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	62
21	Thickness-Dependent Crossover from Charge- to Strain-Mediated Magnetoelectric Coupling in Ferromagnetic/Piezoelectric Oxide Heterostructures. <i>ACS Nano</i> , 2014, 8, 894-903.	7.3	61
22	Large polarization gradients and temperature-stable responses in compositionally-graded ferroelectrics. <i>Nature Communications</i> , 2017, 8, 14961.	5.8	60
23	Effect of 90° Domain Walls on the Low-Field Permittivity of $\text{PbZr}_{0.2}\text{Ti}_{0.8}\text{O}_3$ Thin Films. <i>Physical Review Letters</i> , 2012, 108, 167601.	11.1	53
24	Nonstoichiometry, Structure, and Properties of BiFeO ₃ Films. <i>Chemistry of Materials</i> , 2016, 28, 5952-5961.	3.2	54
25	Direct Measurement of Pyroelectric and Electrocaloric Effects in Thin Films. <i>Physical Review Applied</i> , 2017, 7, .	1.5	54
26	Effect of 90° Domain Walls and Thermal Expansion Mismatch on the Pyroelectric Properties of Epitaxial $\text{PbZr}_{0.2}\text{Ti}_{0.8}\text{O}_3$ Thin Films. <i>Physical Review Letters</i> , 2012, 109, 257602.	11.1	53
27	Enhanced Electrical Resistivity and Properties via Ion Bombardment of Ferroelectric Thin Films. <i>Advanced Materials</i> , 2016, 28, 10750-10756.	11.1	52
28	Voltage control of unidirectional anisotropy in ferromagnet-multiferroic system. <i>Science Advances</i> , 2018, 4, eaat4229.	4.7	52
29	Ultrafast Terahertz Gating of the Polarization and Giant Nonlinear Optical Response in BiFeO ₃ Thin Films. <i>Advanced Materials</i> , 2015, 27, 6371-6375.	11.1	47
30	Reducing Coercive-Field Scaling in Ferroelectric Thin Films via Orientation Control. <i>ACS Nano</i> , 2018, 12, 4736-4743.	7.3	47
31	Direct observation of ferroelectric domain switching in varying electric field regimes using in situ TEM. <i>Micron</i> , 2012, 43, 1121-1126.	1.1	40
32	Complex Evolution of Built-in Potential in Compositionally-Graded $\text{PbZr}_{1-x}\text{Ti}_x\text{O}_3$ Thin Films. <i>ACS Nano</i> , 2015, 9, 7332-7342.	7.3	39
33	High-frequency thermal-electrical cycles for pyroelectric energy conversion. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	37
34	Epitaxial Strain Control of Relaxor Ferroelectric Phase Evolution. <i>Advanced Materials</i> , 2019, 31, e1901060.	11.1	29
35	Perspective: Emergent topologies in oxide superlattices. <i>APL Materials</i> , 2018, 6, 100901.	2.2	28
36	Strain-induced growth instability and nanoscale surface patterning in perovskite thin films. <i>Scientific Reports</i> , 2016, 6, 26075.	1.6	24

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37	Understanding order in compositionally graded ferroelectrics: Flexoelectricity, gradient, and depolarization field effects. <i>Physical Review B</i> , 2014, 89, .	1.1	22
38	Accessing intermediate ferroelectric switching regimes with time-resolved transmission electron microscopy. <i>Journal of Applied Physics</i> , 2012, 112, 052013.	1.1	21
39	Stabilization of mixed-phase structures in highly strained BiFeO ₃ thin films via chemical-alloying. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	16
40	Tuning Susceptibility via Misfit Strain in Relaxed Morphotropic Phase Boundary PbZr _{1-x} Ti _x O ₃ Epitaxial Thin Films. <i>Advanced Materials Interfaces</i> , 2014, 1, 1400098.	1.9	16
41	Nonstoichiometry, structure, and properties of Ba _{1-x} Ti _y thin films. <i>Journal of Materials Chemistry C</i> , 2018, 6, 10751-10759.	2.7	16
42	Real-Time Observation of Local Strain Effects on Nonvolatile Ferroelectric Memory Storage Mechanisms. <i>Nano Letters</i> , 2014, 14, 3617-3622.	4.5	15
43	Asymmetric Response of Ferroelastic Domain-Wall Motion under Applied Bias. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 2935-2941.	4.0	11
44	Structural imaging of nanoscale phonon transport in ferroelectrics excited by metamaterial-enhanced terahertz fields. <i>Physical Review Materials</i> , 2017, 1, .	0.9	5
45	X-ray diffraction studies of stripelike ferroelectric domains in thin films of BiFeO_3 . <i>Physical Review B</i> , 2014, 89, .		
46	Phase Coexistence of Ferroelectric Vortices and Classical a_1/a_2 Domains in PbTiO ₃ /SrTiO ₃ Superlattices.. <i>Microscopy and Microanalysis</i> , 2018, 24, 1638-1639.	0.2	2