

Andrew Bell

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125
papers

4,126
citations

32
h-index

61
g-index

149
ext. papers

4,621
ext. citations

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avg, IF

5.68
L-index

#	Paper	IF	Citations
125	On the phase identity and its thermal evolution of lead free (Bi _{1/2} Na _{1/2})TiO ₃ -6 mol% BaTiO ₃ . <i>Journal of Applied Physics</i> , 2011 , 110, 074106	2.5	638
124	Relationships between dopants, microstructure and the microwave dielectric properties of ZrO ₂ -TiO ₂ -SnO ₂ ceramics. <i>Journal of Materials Science</i> , 1992 , 27, 6303-6310	4.3	204
123	Phenomenologically derived electric field-temperature phase diagrams and piezoelectric coefficients for single crystal barium titanate under fields along different axes. <i>Journal of Applied Physics</i> , 2001 , 89, 3907-3914	2.5	173
122	Evidence for domain-type dynamics in the ergodic phase of the PbMg _{1/3} Nb _{2/3} O ₃ relaxor ferroelectric. <i>Physical Review B</i> , 1996 , 53, 11281-11284	3.3	167
121	Requirements for the transfer of lead-free piezoceramics into application. <i>Journal of Materiomics</i> , 2018 , 4, 13-26	6.7	121
120	Large Electrostrictive Strain in (Bi _{0.5} Na _{0.5})TiO ₃ -BaTiO ₃ -(Sr _{0.7} Bi _{0.2})TiO ₃ Solid Solutions. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 848-853	3.8	121
119	The effect of grain size on the permittivity of BaTiO ₃ . <i>Ferroelectrics</i> , 1984 , 54, 147-150	0.6	117
118	Lead-free piezoelectrics—the environmental and regulatory issues. <i>MRS Bulletin</i> , 2018 , 43, 581-587	3.2	109
117	Processing and electrical properties of BiFeO ₃ -PbTiO ₃ ceramics. <i>Materials Letters</i> , 2004 , 58, 3844-3846	3.3	101
116	A phenomenological gibbs function for BaTiO ₃ giving correct e field dependence of all ferroelectric phase changes. <i>Ferroelectrics</i> , 1984 , 59, 197-203	0.6	100
115	Calculations of dielectric properties from the superparaelectric model of relaxors. <i>Journal of Physics Condensed Matter</i> , 1993 , 5, 8773-8792	1.8	91
114	Electrocaloric enhancement near the morphotropic phase boundary in lead-free NBT-KBT ceramics. <i>Applied Physics Letters</i> , 2015 , 107, 172903	3.4	82
113	High-Performance Piezoelectric Crystals, Ceramics, and Films. <i>Annual Review of Materials Research</i> , 2018 , 48, 191-217	12.8	76
112	Electric-field-induced phase switching in the lead free piezoelectric potassium sodium bismuth titanate. <i>Applied Physics Letters</i> , 2010 , 97, 132909	3.4	70
111	Leakage mechanisms in bismuth ferrite-lead titanate thin films on Pt/Si substrates. <i>Applied Physics Letters</i> , 2008 , 92, 072908	3.4	69
110	Piezoelectric materials for high temperature transducers and actuators. <i>Journal of Materials Science: Materials in Electronics</i> , 2015 , 26, 9256-9267	2.1	68
109	Ferroelectrics: The role of ceramic science and engineering. <i>Journal of the European Ceramic Society</i> , 2008 , 28, 1307-1317	6	62

108	Large remanent polarization in ferroelectric BiFeO ₃ /PbTiO ₃ thin films on Pt/Bi substrates. <i>Applied Physics Letters</i> , 2007 , 91, 032901	3.4	61
107	Factors influencing the piezoelectric behaviour of PZT and other morphotropic phase boundary ferroelectrics. <i>Journal of Materials Science</i> , 2006 , 41, 13-25	4.3	60
106	Pyroelectric ceramics in the lead zirconate-lead titanate-lead iron niobate system. <i>Ferroelectrics</i> , 1981 , 35, 155-160	0.6	57
105	High-temperature (1-x)BiSc _{1-x} Fe _{1-x} O _{3-x} PbTiO ₃ piezoelectric ceramics. <i>Applied Physics Letters</i> , 2005 , 87, 242901	3.4	54
104	Correlations between transition temperature, tolerance factor and cohesive energy in 2+:4+ perovskites. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 176201	1.8	53
103	Structure of Ba(Y+31/2Ta+51/2)O ₃ and its dielectric properties in the range 10 ² -10 ¹⁴ Hz, 20-300 K. <i>Journal of Applied Physics</i> , 1994 , 76, 5864-5873	2.5	52
102	Heterogeneity of fatigue in bulk lead zirconate titanate. <i>Acta Materialia</i> , 2005 , 53, 2203-2213	8.4	48
101	Diffuse dielectric behaviour in Na _{0.5} K _{0.5} NbO ₃ /TiTaO ₃ /BiScO ₃ lead-free ceramics. <i>Materials Chemistry and Physics</i> , 2011 , 129, 411-417	4.4	44
100	Investigation of high Curie temperature (1-x)BiSc _{1-x} Fe _x O _{3-x} PbTiO ₃ piezoelectric ceramics. <i>Journal of Applied Physics</i> , 2009 , 106, 084107	2.5	42
99	Piezoelectric properties of BiFeO ₃ /PbTiO ₃ ceramics. <i>European Physical Journal Special Topics</i> , 2005 , 128, 13-17		40
98	Lead loss, preferred orientation, and the dielectric properties of sol-gel prepared lead titanate thin films. <i>Applied Physics Letters</i> , 1994 , 65, 2678-2680	3.4	37
97	Multiferroic Clusters: A New Perspective for Relaxor-Type Room-Temperature Multiferroics. <i>Advanced Functional Materials</i> , 2016 , 26, 2111-2121	15.6	37
96	Change in periodicity of the incommensurate magnetic order towards commensurate order in bismuth ferrite lead titanate. <i>Journal of Magnetism and Magnetic Materials</i> , 2010 , 322, L64-L67	2.8	36
95	In situ production of titanium dioxide nanoparticles in molten salt phase for thermal energy storage and heat-transfer fluid applications. <i>Journal of Nanoparticle Research</i> , 2016 , 18, 150	2.3	35
94	Relaxors as superparaelectrics with distributions of the local transition temperature. <i>Journal of Physics Condensed Matter</i> , 1995 , 7, 4145-4168	1.8	35
93	Phase-specific magnetic ordering in BiFeO ₃ /PbTiO ₃ . <i>Applied Physics Letters</i> , 2008 , 93, 232901	3.4	31
92	Dependence of breakdown field on dielectric (interelectrode) thickness in base-metal electroded multilayer capacitors. <i>Applied Physics Letters</i> , 2007 , 90, 112910	3.4	31
91	Ferroelasticity and R-Curve Behavior in BiFeO ₃ /PbTiO ₃ . <i>Journal of the American Ceramic Society</i> , 2006 , 89, 1761-1763	3.8	30

90	Multiferroic properties of BiFeO ₃ -(K _{0.5} Bi _{0.5})TiO ₃ ceramics. <i>Materials Letters</i> , 2013 , 94, 172-175	3.3	28
89	Crystallographic and magnetic identification of secondary phase in orientated Bi ₅ Fe _{0.5} Co _{0.5} Ti ₃ O ₁₅ ceramics. <i>Journal of Applied Physics</i> , 2012 , 112, 073919	2.5	28
88	Flux growth of BiFeO ₃ PbTiO ₃ single crystals. <i>Journal of Crystal Growth</i> , 2005 , 285, 156-161	1.6	28
87	Tailoring the structure and piezoelectric properties of BiFeO ₃ -(K _{0.5} Bi _{0.5})TiO ₃ PbTiO ₃ ceramics for high temperature applications. <i>Applied Physics Letters</i> , 2013 , 103, 152901	3.4	27
86	Observation of a time-dependent structural phase transition in potassium sodium bismuth titanate. <i>Applied Physics Letters</i> , 2011 , 98, 182904	3.4	27
85	Shift in Morphotropic Phase Boundary in La-Doped BiFeO ₃ PbTiO ₃ Piezoceramics. <i>Japanese Journal of Applied Physics</i> , 2009 , 48, 120205	1.4	27
84	Growth and characterization of tetragonal bismuth ferrite/lead titanate thin films. <i>Acta Materialia</i> , 2008 , 56, 2110-2118	8.4	27
83	Antiferromagnetic order in tetragonal bismuth ferrite/lead titanate. <i>Journal of Magnetism and Magnetic Materials</i> , 2011 , 323, 2533-2535	2.8	26
82	Deposition of PbTiO ₃ films on Pt/Si substrates using pulsed laser deposition. <i>Journal of the European Ceramic Society</i> , 2008 , 28, 591-597	6	26
81	A thin film pyroelectric detector. <i>Integrated Ferroelectrics</i> , 1995 , 6, 231-240	0.8	26
80	Local resistive switching of Nd doped BiFeO ₃ thin films. <i>Applied Physics Letters</i> , 2012 , 100, 133505	3.4	25
79	High temperature piezoelectric ceramics in the Bi(Mg _{1/2} Ti _{1/2})O ₃ -BiFeO ₃ -BiScO ₃ -PbTiO ₃ system. <i>Journal of Electroceramics</i> , 2010 , 25, 130-134	1.5	25
78	Electron backscatter diffraction mapping of herringbone domain structures in tetragonal piezoelectrics. <i>Journal of Applied Physics</i> , 2008 , 104, 024111	2.5	25
77	On the origin of the large piezoelectric effect in morphotropic phase boundary perovskite single crystals. <i>Applied Physics Letters</i> , 2000 , 76, 109-111	3.4	25
76	Morphotropic Phase Boundary in the Pb-Free (1 - x)BiTi(3/8)Fe(2/8)Mg(3/8)O ₃ CaTiO ₃ System: Tetragonal Polarization and Enhanced Electromechanical Properties. <i>Advanced Materials</i> , 2015 , 27, 2883-2894	2.4	24
75	Exceptionally large piezoelectric strains in BiFeO ₃ -(K _{0.5} Bi _{0.5})TiO ₃ PbTiO ₃ ceramics. <i>Scripta Materialia</i> , 2013 , 68, 491-494	5.6	24
74	Chemical control of octahedral tilting and off-axis A cation displacement allows ferroelectric switching in a bismuth-based perovskite. <i>Chemical Science</i> , 2012 , 3, 1426	9.4	24
73	Phase diagram and structure-property relationships in the lead-free piezoelectric system: Na _{0.5} K _{0.5} NbO ₃ -LiTaO ₃ . <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011 , 58, 1819-25	3.2	24

72	Processing and properties of thin film pyroelectric devices. <i>Microelectronic Engineering</i> , 1995 , 29, 93-96	2.5	24
71	High temperature neutron diffraction studies of 0.9BiFeO ₃ 0.1PbTiO ₃ . <i>Journal of Applied Physics</i> , 2009 , 105, 094108	2.5	23
70	Dielectric Measurements on High-Q Ceramics in the Microwave Region. <i>Journal of the American Ceramic Society</i> , 2005 , 80, 1095-1100	3.8	23
69	Synthesis of nano-structured Bi _{1-x} BaxFeO ₃ ceramics with enhanced magnetic and electrical properties. <i>Materials Chemistry and Physics</i> , 2015 , 162, 106-112	4.4	21
68	Dielectric and piezoelectric properties in the lead-free system Na _{0.5} K _{0.5} NbO ₃ -BiScO ₃ -LiTaO ₃ . <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011 , 58, 1811-8	3.2	21
67	Temperature dependence of the intrinsic and extrinsic contributions in BiFeO ₃ -(K _{0.5} Bi _{0.5})TiO ₃ -PbTiO ₃ piezoelectric ceramics. <i>Journal of Applied Physics</i> , 2014 , 116, 094102	2.5	19
66	Synthesis of the ferroelectric solid solution, Pb(Zr _{1-x} Tix)O ₃ on a single substrate using a modified molecular beam epitaxy technique. <i>Applied Physics Letters</i> , 2007 , 90, 202907	3.4	18
65	PENDEXE: A novel energy harvesting concept for low frequency human waistline. <i>Sensors and Actuators A: Physical</i> , 2015 , 222, 39-47	3.9	17
64	Electrical conductivity in uranium doped, modified lead zirconate pyroelectric ceramics. <i>Ferroelectrics</i> , 1981 , 37, 543-546	0.6	17
63	Choice of tip, signal stability, and practical aspects of piezoresponse-force-microscopy. <i>Review of Scientific Instruments</i> , 2015 , 86, 083707	1.7	16
62	Investigation of dielectric and piezoelectric properties of niobium-modified PLSZFT nanoceramics for sensor and actuator applications. <i>Journal of Alloys and Compounds</i> , 2009 , 473, 330-335	5.7	16
61	Ferroelectric BiFeO ₃ -PbTiO ₃ thin films on Pt/Si substrates. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2007 , 54, 2583-6	3.2	16
60	Improved Compaction in Multilayer Capacitor Fabrication. <i>Journal of the European Ceramic Society</i> , 1999 , 19, 1691-1695	6	16
59	Pressure induced para-antiferromagnetic switching in BiFeO ₃ 0.5PbTiO ₃ as determined using in-situ neutron diffraction. <i>Journal of Applied Physics</i> , 2013 , 113, 183910	2.5	14
58	Calculations of finite size effects in barium titanate. <i>Ferroelectrics, Letters Section</i> , 1993 , 15, 133-140	0.5	14
57	Electric field dependent local structure of (KxNa _{1-x}) _{0.5} Bi _{0.5} TiO ₃ . <i>Physical Review B</i> , 2017 , 96,	3.3	13
56	Electron backscatter diffraction as a domain analysis technique in BiFeO ₃ -PbTiO ₃ single crystals. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2008 , 55, 957-62	3.2	13
55	Ferroelectric Behavior in Exfoliated 2D Aurivillius Oxide Flakes of Sub-Unit Cell Thickness. <i>Advanced Electronic Materials</i> , 2020 , 6, 1901264	6.4	13

54	Perovskite B-site compositional control of [110]p polar displacement coupling in an ambient-pressure-stable bismuth-based ferroelectric. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 10770-5	16.4	11
53	A Two-Parameter Thermodynamic Model for PZT. <i>Ferroelectrics</i> , 2003 , 293, 19-31	0.6	11
52	Expanding the application space for piezoelectric materials. <i>APL Materials</i> , 2021 , 9, 010901	5.7	11
51	Reporting Excellent Transverse Piezoelectric and Electro-Optic Effects in Transparent Rhombohedral PMN-PT Single Crystal by Engineered Domains. <i>Advanced Materials</i> , 2021 , 33, e2103013	2.4	11
50	Processing of Nanoparticulate Bismuth Ferrite Lead Titanate (BFPT) Through High-Energy Milling. <i>Journal of the American Ceramic Society</i> , 2005 , 88, 2608-2610	3.8	10
49	Domain wall contributions to piezoelectricity in relaxor-lead titanate single crystals. <i>Acta Materialia</i> , 2020 , 195, 292-303	8.4	9
48	High voltage coefficient piezoelectric materials and their applications. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 6115-6129	6	9
47	A Two Order Parameter Thermodynamic Model for Pb(Zr _{1-x} Ti _x)O ₃ . <i>Japanese Journal of Applied Physics</i> , 2003 , 42, 7418-7423	1.4	8
46	Temperature Dependence of Domain Contributions as a Function of Aging in Soft and Hard Lead Zirconate Titanate Piezoelectric Ceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2017 , 64, 1023-1028	3.2	7
45	Imaging of domains in single crystals of BiFeO ₃ -PbTiO ₃ using various microscopy techniques. <i>Journal of Physics: Conference Series</i> , 2006 , 26, 239-242	0.3	7
44	Effects of poling and crystallinity on the dielectric properties of Pb(InNb)O-Pb(MgNb)O-PbTiO at cryogenic temperatures. <i>Scientific Reports</i> , 2019 , 9, 2442	4.9	6
43	LASER TRANSFER PROCESSING AND THE INTEGRATION OF FERROELECTRIC FILMS. <i>Integrated Ferroelectrics</i> , 2009 , 106, 40-48	0.8	6
42	Highly charged 180 degree head-to-head domain walls in lead titanate. <i>Communications Physics</i> , 2020 , 3,	5.4	6
41	A classical mechanics model for the interpretation of piezoelectric property data. <i>Journal of Applied Physics</i> , 2015 , 118, 224103	2.5	5
40	Electron Backscattered Diffraction of MonoCrystalline Bismuth Titanate. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 3604-3606	3.8	5
39	TfC13. Rapid thermal processing of PZT thin films. <i>Ferroelectrics</i> , 1992 , 134, 285-290	0.6	5
38	Characterization of thick bismuth ferrite/lead titanate films processed by tape casting and templated grain growth. <i>Journal of the European Ceramic Society</i> , 2015 , 35, 4453-4458	6	4
37	Landau/Devonshire derived phase diagram of the BiFeO ₃ /PbTiO ₃ solid solution. <i>Journal of Applied Physics</i> , 2020 , 127, 104102	2.5	4

36	Variation of Piezoelectric properties and mechanisms across the relaxor-like/Ferroelectric continuum in BiFeO ₃ - (K _{0.5} Bi _{0.5})TiO ₃ -PbTiO ₃ ceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2015 , 62, 33-45	3.2	4
35	The effect of post deposition anneal temperature on the structure of BiFeO ₃ /PbTiO ₃ thin films. <i>Thin Solid Films</i> , 2012 , 524, 26-29	2.2	4
34	Pulsed laser deposition and characterization of (BiFeO ₃) _{0.7} -(PbTiO ₃) _{0.3} thin films. <i>Journal of Physics: Conference Series</i> , 2006 , 26, 288-291	0.3	4
33	Balancing hyperbole and impact in research communications related to lead-free piezoelectric materials. <i>Journal of Materials Science</i> , 2020 , 55, 10971-10974	4.3	3
32	Microstructure development of BiFeO ₃ /PbTiO ₃ films deposited by pulsed laser deposition on platinum substrates. <i>Acta Materialia</i> , 2014 , 66, 44-53	8.4	3
31	Epitaxial Bi ₉ Ti ₃ Fe ₅ O ₂₇ thin films: a new type of layer-structure room-temperature multiferroic. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 7720-7725	7.1	3
30	Factors influencing the piezoelectric behaviour of PZT and other morphotropic phase boundary ferroelectrics 2006 , 13-25		3
29	Low-loss passive alignment of single-mode fibers in low-temperature cofired ceramics using CO ₂ laser fabricated U-grooves. <i>Applied Optics</i> , 2006 , 45, 9168-75	1.7	3
28	DiC7: An orientational glass model of electrostriction in relaxor dielectrics. <i>Ferroelectrics</i> , 1992 , 133, 115-120	0.6	3
27	Macroscopic polarization in the nominally ergodic relaxor state of lead magnesium niobate. <i>Applied Physics Letters</i> , 2020 , 117, 102901	3.4	3
26	Reversible piezomagnetolectric switching in bulk polycrystalline ceramics. <i>APL Materials</i> , 2014 , 2, 086105	0.5	2
25	Influence of the thickness on structural, magnetic and electrical properties of BiFeO ₃ -PbTiO ₃ thin film prepared by pulsed laser deposition 2010 ,		2
24	Growth and Characterization of High Quality BiFeO ₃ -PbTiO ₃ Single Crystals. <i>Integrated Ferroelectrics</i> , 2012 , 132, 1-8	0.8	2
23	Internal Stress and Phase Coexistence in Bismuth Ferrite-Lead Titanate Ceramics. <i>Applications of Ferroelectrics, IEEE International Symposium on</i> , 2007 ,		2
22	Intermodulation distortion in wide-band dual-mode bulk ferroelectric bandpass filters 2005 ,		2
21	The influence of oxygen vacancies on piezoelectricity in samarium-doped Pb(Mg _{1/3} Nb _{2/3})O ₃ -PbTiO ₃ ceramics. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 2678-2688	3.8	2
20	Electric-field-induced phase switching in textured Ba-doped bismuth ferrite lead titanate 2013 ,		1
19	Texture analysis of thick bismuth ferrite lead titanate layers 2014 ,		1

18	Synchrotron texture analysis of thick BiFeO ₃ -PbTiO ₃ layers synthesised by tape casting using Aurivillius and non-Aurivillius templates 2012 ,		1
17	Effect of different templates on reactive templated grain growth of BiFeO ₃ -PbTiO ₃ 2010 ,		1
16	Towards the development of efficient low frequency piezoelectric energy harvesters 2010 ,		1
15	Reactive template grain growth of BiFeO ₃ -PbTiO ₃ by using Bi ₄ Ti ₃ O ₁₂ , PbBi ₄ Ti ₄ O ₁₅ and SrTiO ₃ as templates 2011 ,		1
14	Introduction to the special issue on electroceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009 , 56, 1784-1784	3.2	1
13	Study of intrinsic / extrinsic piezoelectric contributions in La-doped BiFeO ₃ - PbTiO ₃ ceramics using the Rayleigh method. <i>Applications of Ferroelectrics, IEEE International Symposium on</i> , 2007 ,		1
12	Development of New High Temperature Piezoelectric Materials. <i>Applications of Ferroelectrics, IEEE International Symposium on</i> , 2006 ,		1
11	Impedance Spectroscopy of Mn-Doped BiFeO ₃ -PbTiO ₃ Ceramics. <i>Applications of Ferroelectrics, IEEE International Symposium on</i> , 2006 ,		1
10	The dependence of polar cluster characteristics on composition in (1-x)Pb(Mg _{1-x} Nb _{2-x})O ₃ -xLa(Mg _{2-x} Nb _{1-x})O ₃ relaxor dielectrics. <i>Journal of Applied Physics</i> , 2006 , 99, 124104	2.5	1
9	Simple technique for high-throughput marking of distinguishable micro-areas for microscopy. <i>Journal of Microscopy</i> , 2016 , 262, 28-32	1.9	1
8	One Site, Two Cations, Three Environments: s and s Electronic Configurations Generate Pb-Free Relaxor Behavior in a Perovskite Oxide. <i>Journal of the American Chemical Society</i> , 2021 , 143, 1386-1398	16.4	1
7	Introduction to the special issue on the applications of ferroelectrics--part II. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2008 , 55, 938-41	3.2	
6	Synthesis of the Ferroelectric Solid Solution, Pb(Zr _{1-x} Ti _x)O ₃ on a Single Substrate Using a Modified Molecular Beam Epitaxy Technique. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1034, 134		
5	55 years of ferroelectrics. <i>Advances in Applied Ceramics</i> , 2004 , 103, 49-50		
4	Towards a new type of electrochemical sensor system for process control. <i>Progress in Biotechnology</i> , 2000 , 345-352		
3	Co-Precipitation Synthesis of Nano-Sized Yttrium Aluminium Garnet (YAG) Powders. <i>Ceramic Transactions</i> , 71-78	0.1	
2	An equivalent dipole analysis of PZT ceramics and lead-free piezoelectric single crystals. <i>Journal of Advanced Dielectrics</i> , 2016 , 06, 1650010	1.3	
1	Crystallographic and magnetic investigations of textured bismuth ferrite lead titanate layers. <i>Materials Research Express</i> , 2018 , 5, 126103	1.7	

