Zhengkui Xu

List of Publications by Citations

105 papers	3,340 citations	32 h-index	54 g-index
109 ext. papers	3,585 ext. citations	3.6 avg, IF	5.02 L-index

#	Paper	IF	Citations
105	A comprehensive review on the progress of lead zirconate-based antiferroelectric materials. *Progress in Materials Science*, **2014**, 63, 1-57	42.2	434
104	Diffuse phase transition in BaTi1−xSnxO3 ceramics: An intermediate state between ferroelectric and relaxor behavior. *Journal of Applied Physics*, **2006**, 99, 124111	2.5	178
103	Poling dependence and stability of piezoelectric properties of Ba(Zr0.2Ti0.8)O3-(Ba0.7Ca0.3)TiO3 ceramics with huge piezoelectric coefficients. *Current Applied Physics*, **2011**, 11, S120-S123	2.6	146
102	Preferred Orientations for Sol-Gel Derived PLZT Thin Layers. *Materials Research Society Symposia Proceedings*, **1993**, 310, 269		111
101	Long-time present tweedlike precursors and paraelectric clusters in ferroelectrics containing strong quenched randomness. *Applied Physics Letters*, **1995**, 67, 2471-2473	3.4	103
100	Mesostructure of Calcium Silicate Hydrate (C-S-H) Gels in Portland Cement Paste: Short-Range Ordering, Nanocrystallinity, and Local Compositional Order. *Journal of the American Ceramic Society* , **1996**, 79, 1731-1744	3.8	95
99	High piezoelectric activity in (Na,K)NbO3 based lead-free piezoelectric ceramics: Contribution of nanodomains. *Applied Physics Letters*, **2011**, 99, 062901	3.4	94
98	Tunability and relaxor properties of ferroelectric barium stannate titanate ceramics. *Applied Physics Letters*, **2004**, 85, 5319-5321	3.4	89
97	Effect of Oxygen Octahedron Rotations on the Phase Stability, Transformational Characteristics, and Polarization Behavior in the Lead Zirconate Titanate Crystalline Solution Series. *Journal of the American Ceramic Society*, **1995**, 78, 2815-2827	3.8	84
96	Nanometer-Sized ZrO2 Particles Prepared by a Sol‐Emulsion‐Gel Method. *Journal of the American Ceramic Society*, **1990**, 73, 2760-2763	3.8	84
95	On the evolution of structure and composition in sol-gel-derived lead zirconate titanate thin layers. *Journal of Materials Research*, **1995**, 10, 2042-2051	2.5	69
94	Impurity-induced incommensuration in antiferroelectric La-modified lead zirconate titanate. *Physical Review B*, **1995**, 51, 6261-6271	3.3	68
93	Coupling interaction in multiferroic BaTiO3–CoFe2O4nanostructures. *Journal Physics D: Applied Physics*, **2005**, 38, 2321-2326	3	66
92	Crossover from ferroelectric to relaxor behavior in BaTi1−x Sn x O3 solid solutions. *Phase Transitions*, **2008**, 81, 1013-1021	1.3	65
91	Dielectric and piezoelectric properties of Fe2O3-doped (Na0.5K0.5)0.96Li0.04Nb0.86Ta0.1Sb0.04O3 lead-free ceramics. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 1728-1732	3.9	64
90	Thermal stability of electroless-nickel/solder interface: Part A. interfacial chemistry and microstructure. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science* , **2000**, 31, 2857-2866	2.3	58
89	Phase transformation and electric field tunable pyroelectric behavior of Pb(Nb,Zr,Sn,Ti)O3 and (Pb,La)(Zr,Sn,Ti)O3 antiferroelectric thin films. *Applied Physics Letters*, **2006**, 88, 132908	3.4	57

88	Hot-stage transmission electron microscopy studies of phase transformations in tin-modified lead zirconate titanate. *Journal of Applied Physics*, **1993**, 74, 3406-3413	2.5	57
87	Direct Imaging of Atomic Ordering in Undoped and La-Doped Pb(Mg1/3Nb2/3)O3. *Journal of the American Ceramic Society*, **2000**, 83, 181-88	3.8	54
86	Structural and property studies of high Zr-content lead zirconate titanate. *Journal of Physics and Chemistry of Solids*, **1996**, 57, 1545-1554	3.9	52
85	Effect of La substitution on phase transitions in lead zirconate stannate titanate (55□5□0) ceramics. *Journal of Applied Physics*, **2004**, 96, 6606-6610	2.5	45
84	Coexistence of incommensurate antiferroelectric and relaxorlike ferroelectric orderings in high Zr-content La-modified lead zirconate titanate ceramics. *Applied Physics Letters*, **1996**, 68, 1628-1630	3.4	43
83	Uncooled tunable pyroelectric response of antiferroelectric Pb0.97La0.02(Zr0.65Sn0.22Ti0.13)O3 perovskite. *Applied Physics Letters*, **2005**, 87, 192904	3.4	41
82	Ferroelectric properties of PbxSr1□TiO3 and its compositionally graded thin films grown on the highly oriented LaNiO3 buffered Pt□Ti□SiO2□Si substrates. *Journal of Applied Physics*, **2006**, 100, 034108	2.5	41
81	Raman spectroscopy study of ferroelectric modes in [001]-oriented 0.67Pb(Mg1□Nb2□)O3□0.33PbTiO3 single crystals. *Applied Physics Letters*, **2005**, 86, 252903	3.4	41
80	Preparation and tunability properties of Ba(ZrxTi1□)O3 thin films grown by a sol□gel process. *Journal of the European Ceramic Society*, **2006**, 26, 1917-1920	6	39
79	Dielectric properties of oriented PbZrO3 thin films grown by sol-gel process. *Journal of Applied Physics*, **2002**, 92, 3990-3994	2.5	35
78	Ferroelectric Domains and Incommensuration in the Intermediate Phase Region of Lead Zirconate. *Journal of the American Ceramic Society*, **1995**, 78, 2220-2224	3.8	34
77	Phase stability and transformations in pure and lanthanum modified lead zirconate ceramics. *Journal of Applied Physics*, **1995**, 77, 5086-5094	2.5	34
76	. *Chemistry of Materials*, **1994**, 6, 1589-1592	9.6	34
75	Enhanced magnetoelectric effect in Terfenol-D and flextensional cymbal laminates. *Applied Physics Letters*, **2006**, 88, 182906	3.4	33
74	Microstructure and optical properties of scandium oxide thin films prepared by metalorganic chemical-vapor deposition. *Applied Physics Letters*, **2001**, 79, 3782-3784	3.4	33
73	Incommensuration in La-modified antiferroelectric lead zirconate titanate ceramics. *Applied Physics Letters*, **1994**, 65, 3287-3289	3.4	31
72	Normal to Relaxor Ferroelectric Transition and Domain Morphology Evolution in (K,Na)(Nb,Sb)O3□□iTaO3□BaZrO3 Lead-Free Ceramics. *Journal of the American Ceramic Society*, **2011**, 94, 4352-4357	3.8	30
71	Preparation and electrical properties of multilayer ZnO varistors with water-based tape casting. *Ceramics International*, **2009**, 35, 487-492	5.1	29

70	Effect of CoFe2O4 content on the dielectric and magnetoelectric properties in Pb(ZrTi)O3/CoFe2O4 composite. *Journal of Electroceramics*, **2008**, 21, 398-400	1.5	29
69	Effects of ball milling on microstructure and electrical properties of sol–gel derived (Bi0.5Na0.5)0.94Ba0.06TiO3 piezoelectric ceramics. *Materials & Design*, **2010**, 31, 4403-4407		28
68	Dielectric and ferroelectric properties of highly oriented (Pb,Nb)(Zr,Sn,Ti)O3 thin films grown by a sol-gel process. *Applied Physics Letters*, **2002**, 81, 3621-3623	3.4	28
67	Temperature driven nano-domain evolution in lead-free Ba(Zr0.2Ti0.8)O3-50(Ba0.7Ca0.3)TiO3 piezoceramics. *Applied Physics Letters*, **2014**, 105, 032903	3.4	27
66	In situ transmission electron microscopy observations of electric-field-induced domain switching and microcracking in ferroelectric ceramics. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 314, 157-161	5.3	26
65	Microstructural evolution and macroscopic property relationship in antiferroelectric lead lanthanum stannate zirconate titanate ceramics. *Journal of Applied Physics*, **2003**, 94, 4563-4565	2.5	24
64	Electrical properties of AlN thin films prepared by ion beam enhanced deposition. *Surface and Coatings Technology*, **2005**, 196, 130-134	4.4	23
63	Electrical properties of Li doped sodium potassium niobate thick films prepared by a tape casting process. *Journal of Alloys and Compounds*, **2011**, 509, 7130-7133	5.7	22
62	Nanoscale domain switching mechanism in Pb(Zr,Ti)O3 thin film. *Applied Physics A: Materials Science and Processing*, **2003**, 76, 401-404	2.6	21
61	Constriction of the polarization by incoherent oxygen octahedral tilting in rhombohedral-structured lead zirconate titanate. *Journal of Applied Physics*, **1995**, 77, 3354-3360	2.5	21
60	Influence of Mn2+ on the electrical properties of textured KNN thick films. *Ceramics International*, **2012**, 38, S287-S290	5.1	20
59	Effects of buffer layers on the orientation and dielectric properties of Ba(Zr0.20Ti0.80)O3 thin films prepared by sol–gel method. *Journal of Crystal Growth*, **2008**, 310, 1245-1249	1.6	18
58	Distribution and formation mechanism of the domain structure in PMN–33% PT single crystals. *Journal Physics D: Applied Physics*, **2004**, 37, 2914-2917	3	18
57	Effects of Rare-Earth Dopants on the Ferroelectric and Pyroelectric Properties of Strontium Barium Niobate Ceramics. *International Journal of Applied Ceramic Technology*, **2009**, 6, 671-678	2	17
56	In situ TEM study of electric field-induced microcracking in piezoelectric single crystals. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2003**, 99, 106-111	3.1	17
55	Enhanced dielectric tunability properties of Ba(ZrxTi1−x)O3 thin films using seed layers on Pt/Ti/SiO2/Si substrates. *Ceramics International*, **2008**, 34, 905-910	5.1	16
54	Enhancement of ferroelectricity in the compositionally graded (Pb,Sr)TiO3 thin films derived by a sol–gel process. *Journal of Crystal Growth*, **2006**, 286, 37-41	1.6	16
53	Thickness-dependent dielectric and tunable properties of barium stannate titanate thin films. *Journal of Applied Physics*, **2009**, 106, 024104	2.5	15

52	Bio-assembled nanocomposites in conch shells exhibit giant electret hysteresis. *Advanced Materials*, **2013**, 25, 711-8	24	14
51	Polarized Raman mapping study of the microheterogeneity in 0.67PbMg1/3 Nb2/3O3-0.33PbTiO3 single crystal. *Journal of Raman Spectroscopy*, **2010**, 41, 1735-1742	2.3	14
50	Preparation and electrical properties of highly (1 1 1) oriented antiferroelectric PLZST films by radio frequency magnetron sputtering. *Acta Materialia*, **2007**, 55, 3923-3928	8.4	14
49	Incommensurately Modulated Polar Structures in Antiferroelectric Tin-Modified Lead Zirconate Titanate: II, Dependence of Structure-Property Relations on Tin Content. *Journal of the American Ceramic Society*, **2005**, 81, 2225-2236	3.8	14
48	Effect of Orientation on the Ferroelectric Behavior of (Pb,Sr)TiO3 Thin Films. *Journal of the American Ceramic Society*, **2006**, 89, 354-357	3.8	13
47	TEM and EDS investigation of heterogeneous interfaces in cofired multilayer ceramic capacitors. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2002**, 95, 1-5	3.1	13
46	Fabrication of grain orientation BaTiO3 thick film by template grain growth method. *Solid State Communications*, **2011**, 151, 120-122	1.6	12
45	Dielectric properties of heterostructured BZT thin films prepared by sol□gel technique. *Materials Letters*, **2008**, 62, 3198-3200	3.3	12
44	Preparation and Piezoelectric Properties of (h00)-Oriented BaTiO3 Ceramics by Tape Casting. *Ferroelectrics*, **2010**, 401, 30-35	0.6	11
43	Structures and electrical properties of (Na0.5K0.5)NbO3□i(Ta0.5Nb0.5)O3 lead-free piezoelectric ceramics. *Journal of Materials Science: Materials in Electronics*, **2009**, 20, 469-472	2.1	11
42	Phase transformation behavior of (Pb,La)(Zr,Sn,Ti)O3 and Pb (Nb,Zr,Sn,Ti)O3 antiferroelectric thin films deposited on LaNiO3-buffered silicon substrates by sol-gel processing. *Journal of Sol-Gel Science and Technology*, **2007**, 42, 369-373	2.3	11
41	Phase stability and pyroelectricity of antiferroelectric PLZST oxide. *Journal of Electroceramics*, **2008**, 21, 145-148	1.5	11
40	Tunability and permittivity-temperature characteristics of highly (100) oriented compositionally graded (Ba0.7Sr0.3)(SnxTi1□)O3 thin films grown by pulse-laser deposition. *Applied Physics Letters*, **2006**, 89, 152907	3.4	11
39	Comparative study of the effect of domain structures on piezoelectric properties in three typical Pb-free piezoceramics. *Ceramics International*, **2014**, 40, 13565-13571	5.1	10
38	Hardening characteristics and compositional dependence of piezoelectric properties in Cu2+ modified 0.52NaNbO3□(0.48□)KNbO3□LiNbO3 ceramics. *Journal of Alloys and Compounds*, **2009**, 488, 465-468	5.7	10
37	Unusual strain dependence of tunability in highly (100)-oriented Mn-doped barium strontium stannate titanate thin films. *Applied Physics Letters*, **2008**, 92, 232907	3.4	10
36	Comparison of Water-Based and Solvent-Based Tape Casting for Preparing Multilayer ZnO Varistors. *Journal of the American Ceramic Society*, **2008**, 91, 3742-3745	3.8	10
35	Phase Transition and Electrical Properties of Li-and Ta-Substituted (Na0.52K0.48)(Nb0.96Sb0.04)O3 Piezoelectric Ceramics. *Journal of the American Ceramic Society*, **2008**, 91, 3771-3773	3.8	10

34	Effect of B content on nanostructure evolution and twinning deformation of nanocrystallite in nc-Ti(N,B)/a-(TiB2,BN) nanocomposite thin films. *Applied Physics Letters*, **2005**, 87, 151902	3.4	10
33	Synthesis and Properties of CaAl2O4-Coated Al2O3 Microcomposite Powders. *Journal of the American Ceramic Society*, **1995**, 78, 2881-2888	3.8	10
32	DC field effect on dielectric property of Ba(Zr Ti1)O3 ceramics. *Ceramics International*, **2013**, 39, S9-S13	5.1	9
31	Internal residual stress studies and enhanced dielectric properties in La0.7Sr0.3CoO3 buffered (Ba,Sr)TiO3 thin films. *Journal of Applied Physics*, **2009**, 106, 064107	2.5	9
30	MgTiO3 and Ba0.60Sr0.40Mg0.15Ti0.85O3 Composite Thin Films with Promising Dielectric Properties for Tunable Applications. *Journal of the American Ceramic Society*, **2008**, 91, 3109-3112	3.8	9
29	The effect of dc bias on the poled states in PNZST antiferroelectric thin films. *Journal Physics D: Applied Physics*, **2007**, 40, 1811-1815	3	9
28	Hot-stage transmission electron microscopy study of (Na, K)NbO3 based lead-free piezoceramics. *Applied Physics Letters*, **2014**, 105, 042904	3.4	8
27	Microstructure investigation of BaxSr1xTiO3 thin film grown on porous silicon substrate. *Materials Science in Semiconductor Processing*, **2004**, 7, 253-258	4.3	8
26	Local characterization of compositionally graded Pb(Zr,Ti)O3 thin films by scanning force microscope. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2003**, 99, 234-237	3.1	8
25	Characterization of MOCVD grown optical coatings of Sc2O3 and Ta-doped SnO2. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2003**, 99, 134-137	3.1	8
24	Observation of a near-static condensation of polarization fluctuations in strontium barium niobate. *Journal of Applied Physics*, **1995**, 77, 1677-1682	2.5	8
23	Near-field acoustic microscopy of ferroelectrics and related materials. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2003**, 99, 2-5	3.1	7
22	Effect of dc bias on the CurieWeiss exponent in 0.76Pb(Mg13Nb23)O30.24PbTiO3 ferroelectric single crystal. *Applied Physics Letters*, **2005**, 86, 142905	3.4	7
21	The tunability and dielectric properties of the compositionally graded Ba(Zr x Ti1x)O3 thin films. *Journal of Electroceramics*, **2008**, 21, 12-16	1.5	6
20	The effect of physical design parameters on the RF and microwave performance of the BST thin film planar interdigitated varactors. *Sensors and Actuators A: Physical*, **2008**, 141, 231-237	3.9	6
19	A novel thin film phase of oriented MgO grown from a liquid solution. *Journal of Crystal Growth*, **2001**, 233, 389-398	1.6	5
18	Hot-stage transmission electron microscopy study of phase transformations in hexacelsian (BaAl2Si2O8). *Journal of Materials Research*, **2002**, 17, 1287-1297	2.5	5
17	Grain growth kinetics of textured-BaTiO3 ceramics. *Bulletin of Materials Science*, **2014**, 37, 779-787	1.7	4

16	Electric properties of BaTiO3 lead-free textured piezoelectric thick film by screen printing method. *Journal of Electroceramics*, **2014**, 33, 208-213	1.5	4
15	Reply to Comment on Mesostructure of Calcium Silicate Hydrate (C-S-H) Gels in Portland Cement Paste: Short-Range Ordering, Nanocrystallinity, and Local Compositional Order. *Journal of the American Ceramic Society*, **1997**, 80, 2961-2962	3.8	4
14	Room-temperature electroluminescence from H-plasma-implanted silicon. *Semiconductor Science and Technology*, **2003**, 18, L55-L58	1.8	4
13	Electric properties of high strain textured Na0.5Bi0.5TiO3-BaTiO3-K0.5Na0.5NbO3 thick films. *Solid State Sciences*, **2011**, 13, 934-937	3.4	3
12	Preparation of (h00)-Oriented K0.5Na0.5NbO3 Ceramics and Its Electrical Properties. *Ferroelectrics*, **2011**, 413, 142-147	0.6	3
11	SFM in acoustic mode and its applications to observation of ferroelectric domain. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2005**, 120, 100-103	3.1	3
10	Electrical Properties of Textured (KNa)0.44Li0.06Nb0.84Sb0.06Ta0.1O3 Thick Films. *Journal of Electronic Materials*, **2012**, 41, 3077-3081	1.9	2
9	Temperature dependence of ferroelectric and dielectric properties of textured 0.98(0.94Na0.5Bi0.5TiO3-0.06BaTiO3)-0.02K0.5Na0.5NbO3 thick film. *Journal of Materials Science*, **2011**, 46, 1053-1057	4.3	2
8	Temperature-dependent property measurements on multi-electroded thin-layer dielectrics. *Review of Scientific Instruments*, **1994**, 65, 2107-2111	1.7	2
7	ELECTRIC FATIGUE PROPERTIES OF Pb(Zr,Ti)O3 THIN FILMS GROWN ON LaNiO3 BUFFER Pt/Ti/SiO2/Si SUBSTRATE BY METALORGANIC CHEMICAL VAPOR DEPOSITION. *Integrated Ferroelectrics*, **2005**, 75, 47-54	0.8	1
6	THE MICROSTRUCTURE CHARACTERISTICS AND DIELECTRIC BEHAVIORS OF THE COMPOSITIONALLY GRADED Ba(Ti,Sn)O3 THIN FILMS. *Integrated Ferroelectrics*, **2005**, 74, 137-145	0.8	1
5	Electric properties of textured (K0.44Na0.52Li0.04)(Nb0.86Ta0.10Sb0.04)O3 thick film prepared by screen printing method. *Bulletin of Materials Science*, **2016**, 39, 1133-1138	1.7	
4	Lattice dynamics and dielectric response of Ba0.4Sr0.6-yMnyTiO3 ceramics in a wide frequency range. *Physica Status Solidi (A) Applications and Materials Science*, **2012**, 209, 1225-1230	1.6	
3	Fabrication and Electrical Properties of (0.94-x)NBT-0.06BT-xKNN Thick Films. *Ferroelectrics*, **2010**, 404, 3-9	0.6	
2	Effect of Strain on the Tunability of Highly (100) Oriented Mn-doped Barium Strontium Stannate Titanate Thin Films. *Materials Research Society Symposia Proceedings*, **2007**, 1034, 102		
1	Electronic valency effect on the stabilization of ferroelectric phase in K1+ modified antiferroelectric lead zirconate. *Ferroelectrics*, **1999**, 234, 281-288	0.6	