

Zhengkui Xu

List of Publications by Year in Descending Order

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

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	Electric properties of textured (K _{0.44} Na _{0.52} Li _{0.04})(Nb _{0.86} Ta _{0.10} Sb _{0.04})O ₃ thick film prepared by screen printing method. <i>Bulletin of Materials Science</i> , 2016 , 39, 1133-1138	1.7	
104	A comprehensive review on the progress of lead zirconate-based antiferroelectric materials. <i>Progress in Materials Science</i> , 2014 , 63, 1-57	42.2	434
103	Temperature driven nano-domain evolution in lead-free Ba(Zr _{0.2} Ti _{0.8})O ₃ -50(Ba _{0.7} Ca _{0.3})TiO ₃ piezoceramics. <i>Applied Physics Letters</i> , 2014 , 105, 032903	3.4	27
102	Grain growth kinetics of textured-BaTiO ₃ ceramics. <i>Bulletin of Materials Science</i> , 2014 , 37, 779-787	1.7	4
101	Electric properties of BaTiO ₃ lead-free textured piezoelectric thick film by screen printing method. <i>Journal of Electroceramics</i> , 2014 , 33, 208-213	1.5	4
100	Comparative study of the effect of domain structures on piezoelectric properties in three typical Pb-free piezoceramics. <i>Ceramics International</i> , 2014 , 40, 13565-13571	5.1	10
99	Hot-stage transmission electron microscopy study of (Na, K)NbO ₃ based lead-free piezoceramics. <i>Applied Physics Letters</i> , 2014 , 105, 042904	3.4	8
98	DC field effect on dielectric property of Ba(Zr _{0.1} Ti _{0.9})O ₃ ceramics. <i>Ceramics International</i> , 2013 , 39, S9-S13	5.1	9
97	Bio-assembled nanocomposites in conch shells exhibit giant electret hysteresis. <i>Advanced Materials</i> , 2013 , 25, 711-8	24	14
96	Electrical Properties of Textured (KNa) _{0.44} Li _{0.06} Nb _{0.84} Sb _{0.06} Ta _{0.10} O ₃ Thick Films. <i>Journal of Electronic Materials</i> , 2012 , 41, 3077-3081	1.9	2
95	Lattice dynamics and dielectric response of Ba _{0.4} Sr _{0.6} Mn _{0.1} Ti _{0.9} O ₃ ceramics in a wide frequency range. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012 , 209, 1225-1230	1.6	
94	Influence of Mn ²⁺ on the electrical properties of textured KNN thick films. <i>Ceramics International</i> , 2012 , 38, S287-S290	5.1	20
93	Electrical properties of Li doped sodium potassium niobate thick films prepared by a tape casting process. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 7130-7133	5.7	22
92	Normal to Relaxor Ferroelectric Transition and Domain Morphology Evolution in (K,Na)(Nb,Sb)O ₃ -xLiTaO ₃ -yBaZrO ₃ Lead-Free Ceramics. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 4352-4357	3.8	30
91	Electric properties of high strain textured Na _{0.5} Bi _{0.5} TiO ₃ -BaTiO ₃ -K _{0.5} Na _{0.5} NbO ₃ thick films. <i>Solid State Sciences</i> , 2011 , 13, 934-937	3.4	3
90	Poling dependence and stability of piezoelectric properties of Ba(Zr _{0.2} Ti _{0.8})O ₃ -(Ba _{0.7} Ca _{0.3})TiO ₃ ceramics with huge piezoelectric coefficients. <i>Current Applied Physics</i> , 2011 , 11, S120-S123	2.6	146
89	Temperature dependence of ferroelectric and dielectric properties of textured 0.98(0.94Na _{0.5} Bi _{0.5} TiO ₃ -0.06BaTiO ₃)-0.02K _{0.5} Na _{0.5} NbO ₃ thick film. <i>Journal of Materials Science</i> , 2011 , 46, 1053-1057	4.3	2

88	Preparation of (h00)-Oriented K _{0.5} Na _{0.5} NbO ₃ Ceramics and Its Electrical Properties. <i>Ferroelectrics</i> , 2011 , 413, 142-147	0.6	3
87	Fabrication of grain orientation BaTiO ₃ thick film by template grain growth method. <i>Solid State Communications</i> , 2011 , 151, 120-122	1.6	12
86	High piezoelectric activity in (Na,K)NbO ₃ based lead-free piezoelectric ceramics: Contribution of nanodomains. <i>Applied Physics Letters</i> , 2011 , 99, 062901	3.4	94
85	Preparation and Piezoelectric Properties of (h00)-Oriented BaTiO ₃ Ceramics by Tape Casting. <i>Ferroelectrics</i> , 2010 , 401, 30-35	0.6	11
84	Fabrication and Electrical Properties of (0.94-x)NBT-0.06BT-xKNN Thick Films. <i>Ferroelectrics</i> , 2010 , 404, 3-9	0.6	
83	Polarized Raman mapping study of the microheterogeneity in 0.67PbMg _{1/3} Nb _{2/3} O ₃ -0.33PbTiO ₃ single crystal. <i>Journal of Raman Spectroscopy</i> , 2010 , 41, 1735-1742	2.3	14
82	Effects of ball milling on microstructure and electrical properties of sol-gel derived (Bi _{0.5} Na _{0.5}) _{0.94} Ba _{0.06} TiO ₃ piezoelectric ceramics. <i>Materials & Design</i> , 2010 , 31, 4403-4407		28
81	Internal residual stress studies and enhanced dielectric properties in La _{0.7} Sr _{0.3} CoO ₃ buffered (Ba,Sr)TiO ₃ thin films. <i>Journal of Applied Physics</i> , 2009 , 106, 064107	2.5	9
80	Thickness-dependent dielectric and tunable properties of barium stannate titanate thin films. <i>Journal of Applied Physics</i> , 2009 , 106, 024104	2.5	15
79	Structures and electrical properties of (Na _{0.5} K _{0.5})NbO ₃ /(Ta _{0.5} Nb _{0.5})O ₃ lead-free piezoelectric ceramics. <i>Journal of Materials Science: Materials in Electronics</i> , 2009 , 20, 469-472	2.1	11
78	Effects of Rare-Earth Dopants on the Ferroelectric and Pyroelectric Properties of Strontium Barium Niobate Ceramics. <i>International Journal of Applied Ceramic Technology</i> , 2009 , 6, 671-678	2	17
77	Preparation and electrical properties of multilayer ZnO varistors with water-based tape casting. <i>Ceramics International</i> , 2009 , 35, 487-492	5.1	29
76	Hardening characteristics and compositional dependence of piezoelectric properties in Cu ²⁺ modified 0.52NaNbO ₃ (0.48x)KNbO ₃ (1-x)LiNbO ₃ ceramics. <i>Journal of Alloys and Compounds</i> , 2009 , 488, 465-468	5.7	10
75	Dielectric properties of heterostructured BZT thin films prepared by sol-gel technique. <i>Materials Letters</i> , 2008 , 62, 3198-3200	3.3	12
74	Crossover from ferroelectric to relaxor behavior in BaTi _{1-x} Sn _x O ₃ solid solutions. <i>Phase Transitions</i> , 2008 , 81, 1013-1021	1.3	65
73	Unusual strain dependence of tunability in highly (100)-oriented Mn-doped barium strontium stannate titanate thin films. <i>Applied Physics Letters</i> , 2008 , 92, 232907	3.4	10
72	The tunability and dielectric properties of the compositionally graded Ba(Zr _x Ti _{1-x})O ₃ thin films. <i>Journal of Electroceramics</i> , 2008 , 21, 12-16	1.5	6
71	Phase stability and pyroelectricity of antiferroelectric PLZST oxide. <i>Journal of Electroceramics</i> , 2008 , 21, 145-148	1.5	11

70	Effect of CoFe ₂ O ₄ content on the dielectric and magnetoelectric properties in Pb(ZrTi)O ₃ /CoFe ₂ O ₄ composite. <i>Journal of Electroceramics</i> , 2008 , 21, 398-400	1.5	29
69	Effects of buffer layers on the orientation and dielectric properties of Ba(Zr _{0.20} Ti _{0.80})O ₃ thin films prepared by sol-gel method. <i>Journal of Crystal Growth</i> , 2008 , 310, 1245-1249	1.6	18
68	The effect of physical design parameters on the RF and microwave performance of the BST thin film planar interdigitated varactors. <i>Sensors and Actuators A: Physical</i> , 2008 , 141, 231-237	3.9	6
67	Dielectric and piezoelectric properties of Fe ₂ O ₃ -doped (Na _{0.5} K _{0.5}) _{0.96} Li _{0.04} Nb _{0.86} Ta _{0.14} Sb _{0.04} O ₃ lead-free ceramics. <i>Journal of Physics and Chemistry of Solids</i> , 2008 , 69, 1728-1732	3.9	64
66	Enhanced dielectric tunability properties of Ba(Zr _x Ti _{1-x})O ₃ thin films using seed layers on Pt/Ti/SiO ₂ /Si substrates. <i>Ceramics International</i> , 2008 , 34, 905-910	5.1	16
65	MgTiO ₃ and Ba _{0.60} Sr _{0.40} Mg _{0.15} Ti _{0.85} O ₃ Composite Thin Films with Promising Dielectric Properties for Tunable Applications. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 3109-3112	3.8	9
64	Comparison of Water-Based and Solvent-Based Tape Casting for Preparing Multilayer ZnO Varistors. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 3742-3745	3.8	10
63	Phase Transition and Electrical Properties of Li- and Ta-Substituted (Na _{0.52} K _{0.48})(Nb _{0.96} Sb _{0.04})O ₃ Piezoelectric Ceramics. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 3771-3773	3.8	10
62	Preparation and electrical properties of highly (1 1 1) oriented antiferroelectric PLZST films by radio frequency magnetron sputtering. <i>Acta Materialia</i> , 2007 , 55, 3923-3928	8.4	14
61	Phase transformation behavior of (Pb,La)(Zr,Sn,Ti)O ₃ and Pb (Nb,Zr,Sn,Ti)O ₃ antiferroelectric thin films deposited on LaNiO ₃ -buffered silicon substrates by sol-gel processing. <i>Journal of Sol-Gel Science and Technology</i> , 2007 , 42, 369-373	2.3	11
60	The effect of dc bias on the poled states in PNZST antiferroelectric thin films. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 1811-1815	3	9
59	Effect of Strain on the Tunability of Highly (100) Oriented Mn-doped Barium Strontium Stannate Titanate Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1034, 102		
58	Phase transformation and electric field tunable pyroelectric behavior of Pb(Nb,Zr,Sn,Ti)O ₃ and (Pb,La)(Zr,Sn,Ti)O ₃ antiferroelectric thin films. <i>Applied Physics Letters</i> , 2006 , 88, 132908	3.4	57
57	Tunability and permittivity-temperature characteristics of highly (100) oriented compositionally graded (Ba _{0.7} Sr _{0.3})(Sn _x Ti _{1-x})O ₃ thin films grown by pulse-laser deposition. <i>Applied Physics Letters</i> , 2006 , 89, 152907	3.4	11
56	Enhanced magnetoelectric effect in Terfenol-D and flextensional cymbal laminates. <i>Applied Physics Letters</i> , 2006 , 88, 182906	3.4	33
55	Diffuse phase transition in BaTi _{1-x} Sn _x O ₃ ceramics: An intermediate state between ferroelectric and relaxor behavior. <i>Journal of Applied Physics</i> , 2006 , 99, 124111	2.5	178
54	Ferroelectric properties of Pb _x Sr _{1-x} TiO ₃ and its compositionally graded thin films grown on the highly oriented LaNiO ₃ buffered Pt/Ti/SiO ₂ /Si substrates. <i>Journal of Applied Physics</i> , 2006 , 100, 034108	2.5	41
53	Effect of Orientation on the Ferroelectric Behavior of (Pb,Sr)TiO ₃ Thin Films. <i>Journal of the American Ceramic Society</i> , 2006 , 89, 354-357	3.8	13

52	Enhancement of ferroelectricity in the compositionally graded (Pb,Sr)TiO ₃ thin films derived by a sol-gel process. <i>Journal of Crystal Growth</i> , 2006 , 286, 37-41	1.6	16
51	Preparation and tunability properties of Ba(Zr _x Ti _{1-x})O ₃ thin films grown by a sol-gel process. <i>Journal of the European Ceramic Society</i> , 2006 , 26, 1917-1920	6	39
50	Uncooled tunable pyroelectric response of antiferroelectric Pb _{0.97} La _{0.02} (Zr _{0.65} Sn _{0.22} Ti _{0.13})O ₃ perovskite. <i>Applied Physics Letters</i> , 2005 , 87, 192904	3.4	41
49	Coupling interaction in multiferroic BaTiO ₃ /Fe ₂ O ₄ nanostructures. <i>Journal Physics D: Applied Physics</i> , 2005 , 38, 2321-2326	3	66
48	ELECTRIC FATIGUE PROPERTIES OF Pb(Zr,Ti)O ₃ THIN FILMS GROWN ON LaNiO ₃ BUFFER Pt/Ti/SiO ₂ /Si SUBSTRATE BY METALORGANIC CHEMICAL VAPOR DEPOSITION. <i>Integrated Ferroelectrics</i> , 2005 , 75, 47-54	0.8	1
47	THE MICROSTRUCTURE CHARACTERISTICS AND DIELECTRIC BEHAVIORS OF THE COMPOSITIONALLY GRADED Ba(Ti,Sn)O ₃ THIN FILMS. <i>Integrated Ferroelectrics</i> , 2005 , 74, 137-145	0.8	1
46	SFM in acoustic mode and its applications to observation of ferroelectric domain. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005 , 120, 100-103	3.1	3
45	Electrical properties of AlN thin films prepared by ion beam enhanced deposition. <i>Surface and Coatings Technology</i> , 2005 , 196, 130-134	4.4	23
44	Incommensurately Modulated Polar Structures in Antiferroelectric Tin-Modified Lead Zirconate Titanate: II, Dependence of Structure-Property Relations on Tin Content. <i>Journal of the American Ceramic Society</i> , 2005 , 81, 2225-2236	3.8	14
43	Raman spectroscopy study of ferroelectric modes in [001]-oriented 0.67Pb(Mg _{1/3} Nb _{2/3})O ₃ -0.33PbTiO ₃ single crystals. <i>Applied Physics Letters</i> , 2005 , 86, 252903	3.4	41
42	Effect of dc bias on the Curie-Weiss exponent in 0.76Pb(Mg _{1/3} Nb _{2/3})O ₃ -0.24PbTiO ₃ ferroelectric single crystal. <i>Applied Physics Letters</i> , 2005 , 86, 142905	3.4	7
41	Effect of B content on nanostructure evolution and twinning deformation of nanocrystallite in nc-Ti(N,B)- (TiB ₂ ,BN) nanocomposite thin films. <i>Applied Physics Letters</i> , 2005 , 87, 151902	3.4	10
40	Distribution and formation mechanism of the domain structure in PMN3% PT single crystals. <i>Journal Physics D: Applied Physics</i> , 2004 , 37, 2914-2917	3	18
39	Effect of La substitution on phase transitions in lead zirconate stannate titanate (55B510) ceramics. <i>Journal of Applied Physics</i> , 2004 , 96, 6606-6610	2.5	45
38	Tunability and relaxor properties of ferroelectric barium stannate titanate ceramics. <i>Applied Physics Letters</i> , 2004 , 85, 5319-5321	3.4	89
37	Microstructure investigation of Ba _x Sr _{1-x} TiO ₃ thin film grown on porous silicon substrate. <i>Materials Science in Semiconductor Processing</i> , 2004 , 7, 253-258	4.3	8
36	Nanoscale domain switching mechanism in Pb(Zr,Ti)O ₃ thin film. <i>Applied Physics A: Materials Science and Processing</i> , 2003 , 76, 401-404	2.6	21
35	In situ TEM study of electric field-induced microcracking in piezoelectric single crystals. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003 , 99, 106-111	3.1	17

34	Near-field acoustic microscopy of ferroelectrics and related materials. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003 , 99, 2-5	3.1	7
33	Local characterization of compositionally graded Pb(Zr,Ti)O ₃ thin films by scanning force microscope. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003 , 99, 234-237	3.1	8
32	Characterization of MOCVD grown optical coatings of Sc ₂ O ₃ and Ta-doped SnO ₂ . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003 , 99, 134-137	3.1	8
31	Room-temperature electroluminescence from H-plasma-implanted silicon. <i>Semiconductor Science and Technology</i> , 2003 , 18, L55-L58	1.8	4
30	Microstructural evolution and macroscopic property relationship in antiferroelectric lead lanthanum stannate zirconate titanate ceramics. <i>Journal of Applied Physics</i> , 2003 , 94, 4563-4565	2.5	24
29	TEM and EDS investigation of heterogeneous interfaces in cofired multilayer ceramic capacitors. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002 , 95, 1-5	3.1	13
28	Dielectric and ferroelectric properties of highly oriented (Pb,Nb)(Zr,Sn,Ti)O ₃ thin films grown by a sol-gel process. <i>Applied Physics Letters</i> , 2002 , 81, 3621-3623	3.4	28
27	Dielectric properties of oriented PbZrO ₃ thin films grown by sol-gel process. <i>Journal of Applied Physics</i> , 2002 , 92, 3990-3994	2.5	35
26	Hot-stage transmission electron microscopy study of phase transformations in hexacelsian (BaAl ₂ Si ₂ O ₈). <i>Journal of Materials Research</i> , 2002 , 17, 1287-1297	2.5	5
25	In situ transmission electron microscopy observations of electric-field-induced domain switching and microcracking in ferroelectric ceramics. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 314, 157-161	5.3	26
24	A novel thin film phase of oriented MgO grown from a liquid solution. <i>Journal of Crystal Growth</i> , 2001 , 233, 389-398	1.6	5
23	Microstructure and optical properties of scandium oxide thin films prepared by metalorganic chemical-vapor deposition. <i>Applied Physics Letters</i> , 2001 , 79, 3782-3784	3.4	33
22	Direct Imaging of Atomic Ordering in Undoped and La-Doped Pb(Mg _{1/3} Nb _{2/3})O ₃ . <i>Journal of the American Ceramic Society</i> , 2000 , 83, 181-88	3.8	54
21	Thermal stability of electroless-nickel/solder interface: Part A. interfacial chemistry and microstructure. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2000 , 31, 2857-2866	2.3	58
20	Electronic valency effect on the stabilization of ferroelectric phase in K ¹⁺ modified antiferroelectric lead zirconate. <i>Ferroelectrics</i> , 1999 , 234, 281-288	0.6	
19	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. <i>Journal of the American Ceramic Society</i> , 1997 , 80, 2961-2962	3.8	4
18	Structural and property studies of high Zr-content lead zirconate titanate. <i>Journal of Physics and Chemistry of Solids</i> , 1996 , 57, 1545-1554	3.9	52
17	Mesostructure of Calcium Silicate Hydrate (C-S-H) Gels in Portland Cement Paste: Short-Range Ordering, Nanocrystallinity, and Local Compositional Order. <i>Journal of the American Ceramic Society</i> , 1996 , 79, 1731-1744	3.8	95

16	Coexistence of incommensurate antiferroelectric and relaxorlike ferroelectric orderings in high Zr-content La-modified lead zirconate titanate ceramics. <i>Applied Physics Letters</i> , 1996 , 68, 1628-1630	3.4	43
15	Effect of Oxygen Octahedron Rotations on the Phase Stability, Transformational Characteristics, and Polarization Behavior in the Lead Zirconate Titanate Crystalline Solution Series. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 2815-2827	3.8	84
14	Ferroelectric Domains and Incommensuration in the Intermediate Phase Region of Lead Zirconate. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 2220-2224	3.8	34
13	Synthesis and Properties of CaAl ₂ O ₄ -Coated Al ₂ O ₃ Microcomposite Powders. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 2881-2888	3.8	10
12	Phase stability and transformations in pure and lanthanum modified lead zirconate ceramics. <i>Journal of Applied Physics</i> , 1995 , 77, 5086-5094	2.5	34
11	Long-time present tweedlike precursors and paraelectric clusters in ferroelectrics containing strong quenched randomness. <i>Applied Physics Letters</i> , 1995 , 67, 2471-2473	3.4	103
10	On the evolution of structure and composition in sol-gel-derived lead zirconate titanate thin layers. <i>Journal of Materials Research</i> , 1995 , 10, 2042-2051	2.5	69
9	Constriction of the polarization by incoherent oxygen octahedral tilting in rhombohedral-structured lead zirconate titanate. <i>Journal of Applied Physics</i> , 1995 , 77, 3354-3360	2.5	21
8	Impurity-induced incommensuration in antiferroelectric La-modified lead zirconate titanate. <i>Physical Review B</i> , 1995 , 51, 6261-6271	3.3	68
7	Observation of a near-static condensation of polarization fluctuations in strontium barium niobate. <i>Journal of Applied Physics</i> , 1995 , 77, 1677-1682	2.5	8
6	Temperature-dependent property measurements on multi-electroded thin-layer dielectrics. <i>Review of Scientific Instruments</i> , 1994 , 65, 2107-2111	1.7	2
5	Incommensuration in La-modified antiferroelectric lead zirconate titanate ceramics. <i>Applied Physics Letters</i> , 1994 , 65, 3287-3289	3.4	31
4	. <i>Chemistry of Materials</i> , 1994 , 6, 1589-1592	9.6	34
3	Hot-stage transmission electron microscopy studies of phase transformations in tin-modified lead zirconate titanate. <i>Journal of Applied Physics</i> , 1993 , 74, 3406-3413	2.5	57
2	Preferred Orientations for Sol-Gel Derived PLZT Thin Layers. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 310, 269		111
1	Nanometer-Sized ZrO ₂ Particles Prepared by a Sol-Emulsion-Gel Method. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2760-2763	3.8	84