Xin-Gui Tang

List of Publications by Year
in descending order

98 papers	1,955 citations	236612 25 h-index	301761 39 g-index
99 all docs	99 docs citations	99 times ranked	1676 citing authors

#	Article	IF	Citations
1	Effect of grain size on the electrical properties of (Ba,Ca)(Zr,Ti)O3 relaxor ferroelectric ceramics. Journal of Applied Physics, 2005, 97, 034109.	1.1	143
2	Oxygen-vacancy-related relaxation and conduction behavior in (Pb1-xBax)(Zr0.95Ti0.05)O3 ceramics. AIP Advances, 2014, 4, .	0.6	98
3	Enhanced energy storage density and efficiency in lead-free Bi(Mg1/2Hf1/2)O3-modified BaTiO3 ceramics. Chemical Engineering Journal, 2021, 418, 129379.	6.6	85
4	Preparation and Electrical Properties of Highly (111)-Oriented (Na0.5Bi0.5)TiO3 Thin Films by a Solâ^'Gel Process. Chemistry of Materials, 2004, 16, 5293-5296.	3.2	82
5	High energy-storage density of lead-free BiFeO3 doped Na0.5Bi0.5TiO3-BaTiO3 thin film capacitor with good temperature stability. Journal of Alloys and Compounds, 2018, 757, 169-176.	2.8	79
6	Resistive Switching Characteristics of HfO2 Thin Films on Mica Substrates Prepared by Sol-Gel Process. Nanomaterials, 2019, 9, 1124.	1.9	55
7	Excellent energy storage density and efficiency in lead-free Sm-doped BaTiO₃â€“Bi(Mg_{0.5}Ti_{0.5})O₃ ceramics. Journal of Materials Chemistry C, 2020, 8, 13405-13414.	2.7	55
8	Oxygen-vacancy-related dielectric relaxation behaviours and impedance spectroscopy of Bi(Mg1/2Ti1/2)O3 modified BaTiO3 ferroelectric ceramics. Journal of Materiomics, 2018, 4, 194-201.	2.8	53
9	Antiferroelectric to relaxor ferroelectric phase transition in PbO modified (Pb_{0.97}La_{0.02})(Zr_{0.95}Ti_{0.05})O₃ ceramics with a large energy-density for dielectric energy storage. RSC Advances, 2017, 7, 43327-43333.	1.7	50
10	Giant electrocaloric effect in BaTiO3â€“Bi(Mg1/2Ti1/2)O3 lead-free ferroelectric ceramics. Journal of Alloys and Compounds, 2018, 747, 1053-1061.	2.8	48
11	The great improvement effect of pores on ZT in Co1â^'xNixSb3 system. Applied Physics Letters, 2008, 93, .	1.5	46
12	Large Electrocaloric Effect in Lead-free Ba(Hf_xTi_{1â€“x})O₃ Ferroelectric Ceramics for Clean Energy Applications. ACS Sustainable Chemistry and Engineering, 2018, 6, 8920-8925.	3.2	44
13	Oxygenâ€Vacancyâ€Related High Temperature Dielectric Relaxation in (Pb_{1â^'x}Ba_x)ZrO₃ Ceramics. Journal of the American Ceramic Society, 2015, 98, 551-558.	1.9	42
14	A Review of a Good Binary Ferroelectric Ceramic: BaTiO₃â€“BiFeO₃. ACS Applied Electronic Materials, 2022, 4, 2109-2145.	2.0	40
15	Energy storage properties and electrocaloric effect of Ba0.65Sr0.35TiO3 ceramics near room temperature. Journal of Materials Science: Materials in Electronics, 2018, 29, 1075-1081.	1.1	37
16	Enhanced electrocaloric analysis and energy-storage performance of lanthanum modified lead titanate ceramics for potential solid-state refrigeration applications. Scientific Reports, 2018, 8, 396.	1.6	35
17	Electrocaloric effect and pyroelectric properties in Ce-doped BaCexTi1â^'xO3 ceramics. Journal of Alloys and Compounds, 2019, 776, 731-739.	2.8	35
18	A highly sensitive, foldable and wearable pressure sensor based on MXene-coated airlaid paper for electronic skin. Journal of Materials Chemistry C, 2021, 9, 12642-12649.	2.7	35

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19	Paraelectric Matrix-Tuned Energy Storage in BiFeO₃â€“BaTiO₃â€“SrTiO₃ Relaxor Ferroelectrics. ACS Applied Energy Materials, 2021, 4, 9216-9226.	2.5	30
20	Orientation related electrocaloric effect and dielectric phase transitions of relaxor PMN-PT single crystals. Ceramics International, 2017, 43, 16300-16305.	2.3	28
21	Temperature-dependent dielectric relaxation and high tunability of (Ba1-Sr)TiO3 ceramics. Journal of Alloys and Compounds, 2018, 731, 70-77.	2.8	28
22	The Microstructure, Electric, Optical and Photovoltaic Properties of BiFeO3 Thin Films Prepared by Low Temperature Solâ€“Gel Method. Materials, 2019, 12, 1444.	1.3	27
23	Highâ€Temperature Dielectric Relaxation Behaviors of Relaxerâ€Like PbZrO₃â€“SrTiO₃ Ceramics for Energyâ€Storage Applications. Energy Technology, 2016, 4, 633-640.	1.8	26
24	Pyroelectric energy harvesting capabilities and electrocaloric effect in lead-free Sr Ba1-Nb2O6 ferroelectric ceramics. Journal of Alloys and Compounds, 2019, 791, 1038-1045.	2.8	26
25	Tailoring energy-storage performance in antiferroelectric PbHfO3 thin films. Materials and Design, 2021, 204, 109666.	3.3	26
26	Energy storage density and chargeâ€“discharge properties of PbHf1â^'Sn O3 antiferroelectric ceramics. Chemical Engineering Journal, 2022, 429, 132540.	6.6	26
27	Dielectric relaxation and pinning phenomenon of (Sr,Pb)TiO3 ceramics for dielectric tunable device application. Scientific Reports, 2016, 6, 31960.	1.6	25
28	Photodiode characteristics of HfO2 thin films prepared by magnetron sputtering. Materials and Design, 2020, 188, 108465.	3.3	24
29	High Energy Storage Density and Impedance Response of PLZT2/95/5 Antiferroelectric Ceramics. Materials, 2017, 10, 143.	1.3	23
30	Bipolar resistive switching behavior and conduction mechanisms of composite nanostructured TiO2/ZrO2 thin film. Ceramics International, 2020, 46, 21196-21201.	2.3	22
31	Large Room Temperature Negative Electrocaloric Effect in Novel Antiferroelectric PbHfO₃ Films. ACS Applied Materials & Interfaces, 2021, 13, 21331-21337.	4.0	21
32	Electrical properties of highly (111)-oriented lead zirconate thin films. Solid State Communications, 2004, 130, 373-377.	0.9	20
33	Giant negative electrocaloric effect in B-site non-stoichiometric (Pb_{0.97}La_{0.02})(Zr_{0.95}Ti_{0.05})_{1+y}O₃ anti-ferroelectric ceramics. Materials Research Letters, 2018, 6, 384-389.	3.1	20
34	Composition dependence of giant electrocaloric effect in Pb Sr1-TiO3 ceramics for energy-related applications. Journal of Materiomics, 2019, 5, 118-126.	2.8	19
35	Multiferroic properties and resistive switching behaviors of Ni0.5Zn0.5Fe2O4 thin films. Advanced Composites and Hybrid Materials, 2021, 4, 1-7.	9.9	19
36	Large energy-storage density and positive electrocaloric effect in xBiFeO₃â€“(1 â^') Tj ETQq0 0 0 rgBT /Overlock 10 1302-1312.	2.7	17

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37	Enhancement of energy-storage properties in BiFeO3-based lead-free bulk ferroelectrics. Ceramics International, 2022, 48, 16792-16799.	2.3	17
38	Bipolar resistive switching characteristics of amorphous SrTiO₃thin films prepared by the sol-gel process. Journal of Asian Ceramic Societies, 2019, 7, 298-305.	1.0	16
39	Synaptic behaviors in flexible Au/WO /Pt/mica memristor for neuromorphic computing system. Materials Today Physics, 2022, 23, 100650.	2.9	16
40	Enhancement of the photoelectric properties of composite oxide TiO2-SrTiO3 thin films. Advanced Composites and Hybrid Materials, 2022, 5, 1557-1565.	9.9	15
41	Energy storage and charge-discharge performance of B-site doped NBT-based lead-free ceramics. Journal of Alloys and Compounds, 2022, 911, 165074.	2.8	15
42	Growth and characterization of oriented Pb1â^'xCaxTiO3 thin films. Thin Solid Films, 2000, 375, 159-162.	0.8	14
43	Giant electrocaloric effect in lead zinc niobate titanate single crystal. Journal of Alloys and Compounds, 2017, 710, 297-301.	2.8	14
44	Enhanced energy-storage density and temperature stability of Pb0.89La0.06Sr0.05(Zr0.95Ti0.05)O3 anti-ferroelectric thin ï¬lm capacitor. Journal of Materiomics, 2022, 8, 239-246.	2.8	14
45	Structural and multiferroic properties of Nd and Mn co-doped 0.55BiFeMnO3-0.45BaTiO3 ceramics with high energy storage efficiency. Ceramics International, 2021, 47, 18800-18807.	2.3	14
46	Ultrahigh energy storage density and superior discharge power density in a novel antiferroelectric lead hafnate. Materials Today Physics, 2022, 24, 100681.	2.9	14
47	Room Temperature Tunable Multiferroic Properties in Sol-Gel-Derived Nanocrystalline Sr(Ti1â^'xFex)O3â^'Î´ Thin Films. Nanomaterials, 2017, 7, 264.	1.9	13
48	Giant Negative Electrocaloric Effect in Anti-Ferroelectric (Pb_{0.97}La_{0.02})(Zr_{0.95}Ti_{0.05})O₃ Ceramics. ACS Omega, 2019, 4, 14650-14654.	1.6	13
49	Large Electrocaloric Effect in Ferroelectric Materials. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2014, 29, 6-12.	0.6	13
50	Electrode effect regulated resistance switching and selector characteristics in Nb doped SrTiO3 single crystal for potential cross-point memory applications. Journal of Alloys and Compounds, 2018, 730, 516-520.	2.8	12
51	Improvement of electrical conductivity and leakage current in co-precipitation derived Nd-doping BiFeO3 ceramics. Journal of Materials Science: Materials in Electronics, 2014, 25, 495-499.	1.1	11
52	The dielectric anomaly and pyroelectric properties of solâ€“gel derived (Pb,Cd,La)TiO3 ceramics. Journal of Materials Science: Materials in Electronics, 2015, 26, 3174-3178.	1.1	11
53	Excellent Bidirectional Adjustable Multistage Resistive Switching Memory in Bi₂FeCrO₆ Thin Film. ACS Applied Materials & Interfaces, 2020, 12, 54168-54173.	4.0	11
54	Bipolar resistive switching characteristics of PbZrO3/LaNiO3 heterostructure thin films prepared by a solâ€“gel process. Ceramics International, 2021, 47, 5617-5623.	2.3	11

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55	Ultra-high dielectric tuning performance and double-set resistive switching effect achieved on the Bi2NiMnO6 thin film prepared by solâ€“gel method. Journal of Colloid and Interface Science, 2022, 606, 913-919.	5.0	11
56	Improvement of memristive properties in CuO films with a seed Cu layer. Applied Physics Letters, 2019, 114, 061602.	1.5	10
57	Resistive switching and optical properties of strontium ferrate titanate thin film prepared via chemical solution deposition. Journal of Advanced Ceramics, 2021, 10, 1001-1010.	8.9	10
58	Highâ€temperature dielectric properties and impedance spectroscopy of PbHf_{1â^'x}Sn_xO₃ceramics. IET Nanodielectrics, 2020, 3, 131-137.	2.0	10
59	Diffuse phase transition and high-temperature dielectric relaxation study on (Bi0.5Na0.5)1-xBaxTiO3 ceramics. Physica B: Condensed Matter, 2016, 496, 20-25.	1.3	9
60	Phase structure analysis and pyroelectric energy harvesting performance of Ba(Hf_xTi_{1â€x})O₃ ceramics. Journal of the American Ceramic Society, 2019, 102, 3623-3629.	1.9	9
61	Photo-induced negative differential resistance and carrier-transport mechanisms in Bi₂FeCrO₆ resistive switching memory devices. Journal of Materials Chemistry C, 2021, 9, 13755-13760.	2.7	9
62	Excellent Bipolar Resistive Switching Characteristics of Bi4Ti3O12 Thin Films Prepared via Sol-Gel Process. Nanomaterials, 2021, 11, 2705.	1.9	9
63	Preparation of (Pb, Cd, La)TiO3 Phase Pure Powders and Thin Films by Sol-gel Processing. Journal of Materials Science Letters, 1998, 17, 1277-1279.	0.5	8
64	Dielectric and Pyroelectric Properties of Compositionally Graded Pb(Zr1-xTix)O3 Thin Films Prepared by Sol-gel Process. Chinese Journal of Chemical Physics, 2007, 20, 665-669.	0.6	8
65	Oxygen vacancy effect on ionic conductivity and relaxation phenomenon of Sr_{<i>x</i>}Ba_{1â€“<i>x</i>}Nb₂O<sub>6 ceramics. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 227701.	0.6	8
66	The enhanced magnetoelectric effect and piezoelectric properties in the lead-free Bi3.15Nd0.85Ti3O12/La0.7Ca0.3MnO3 nano-multilayers composite thin films. Journal of Alloys and Compounds, 2019, 777, 485-491.	2.8	7
67	Anneal temperature dependence of resistive switching and photoelectric properties of Bismuth ferrite thin film prepared via solâ€“gel method. FlatChem, 2021, 28, 100266.	2.8	7
68	Low leakage current in (Bi0.95La0.05)2NiMnO6 double-perovskite thin films prepared by chemical solution deposition. Materials Letters, 2014, 120, 23-25.	1.3	6
69	B-site non-stoichiometric (Pb_{0.97}La_{0.02})(Zr_{0.95}Ti_{0.05})O₃ antiferroelectric ceramics for energy storage. Journal of Asian Ceramic Societies, 2018, 6, 240-246.	1.0	6
70	Analog Memristive Characteristics and Conditioned Reflex Study Based on Au/ZnO/ITO Devices. Electronics (Switzerland), 2018, 7, 141.	1.8	6
71	Pyroelectric energy harvesting and ferroelectric properties of PbxSr1-xTiO3 ceramics. Journal of Asian Ceramic Societies, 2020, 8, 1147-1153.	1.0	6
72	The defect related energy-storage properties of A-site off-stoichiometry ferroelectric ceramic. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	6

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73	An Artificial Synapse Based on CsPbI3 Thin Film. Micromachines, 2022, 13, 284.	1.4	6
74	LARGE PIEZOELECTRIC EFFECT IN LOW-TEMPERATURE-SINTERED LEAD-FREE (Ba0.85Ca0.15)(Zr0.1Ti0.9)O3 THICK FILMS. Functional Materials Letters, 2012, 05, 1250029.	0.7	5
75	Improved electric property in SrTiO3â€“Bi2NiMnO6â€“SrTiO3 sandwich structural thin films. Superlattices and Microstructures, 2015, 85, 653-657.	1.4	5
76	An oxygen defect-related dielectric relaxation behaviors of lead-free Ba(Hf<sub> x) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (Physics, 2018, 51, 485302.	1.3	5
77	Interfacial resistive switching properties of Sr2TiO4/SrTiO3 heterojunction thin films prepared via sol-gel process. Ceramics International, 2021, 47, 18808-18813.	2.3	5
78	Electrical and Pyroelectric Properties of Highly (001)â€Oriented (Pb_{0.76}Ca_{0.24})TiO₃ Thin Films Grown by a Solâ€“Gel Process. Journal of the American Ceramic Society, 2004, 87, 1588-1590.	1.9	4
79	Ferroelectric and Pyroelectric Properties of Highly (111)-oriented Nanocrystalline Pb(Zr_{0.95}Ti_{0.05})O₃ Thin Films. Chinese Journal of Chemical Physics, 2007, 20, 763-767.	0.6	4
80	Relaxation Associated with Oxygen Vacancies at High Temperatures and Leakage Current in Ba x Sr1â^'x TiO3 Ceramics. Journal of Electronic Materials, 2016, 45, 3174-3182.	1.0	4
81	Impedance response and high temperature dielectric relaxation behavior in lead barium strontium zirconate ceramics. Journal of Materials Science: Materials in Electronics, 2016, 27, 1582-1589.	1.1	4
82	Oxygen defect related high temperature dielectric relaxation behavior in (Ba,La)(Zr,Sn,Ti)O3 ceramics. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	4
83	Oxygen vacancies-related high-temperature dielectric relaxation and pyroelectric energy harvesting in lead-free Ba(Zr0.2Ti0.8)O3 ceramics. Journal of Materials Science: Materials in Electronics, 2022, 33, 3024-3033.	1.1	4
84	Modified relaxor ferroelectrics in BiFeO3-(Ba,Sr)TiO3-BiScO3 ceramics for energy storage applications. Sustainable Materials and Technologies, 2022, , e00428.	1.7	4
85	Effect of annealing temperature on dielectric and pyroelectric property of highly (111)-oriented (Pb0.98La0.02)(Zr0.95Ti0.05)0.995O3 thin films. Journal of Materials Science: Materials in Electronics, 2015, 26, 1784-1788.	1.1	3
86	High frequency single crystal ultrasonic transducers up to 100 MHz for high resolution ophthalmic imaging applications. , 2017, , .		3
87	Ferroelectric Diode Effect with Temperature Stability of Double Perovskite Bi2NiMnO6 Thin Films. Nanomaterials, 2019, 9, 1783.	1.9	3
88	Resistive switching behaviors of Au/CZO/FTO/glass heterostructures grown by magnetron sputtering. Journal of Alloys and Compounds, 2020, 817, 152738.	2.8	3
89	High frequency single crystal ultrasonic transducers up to 100 MHz for high resolution ophthalmic imaging applications. , 2017, , .		2
90	The transformation of digital to analog resistance switching behavior in Bi₂FeCrO₆ thin films. Journal of Asian Ceramic Societies, 2021, 9, 851-857.	1.0	2

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91	The thermal conductivity and tolerance factor modulated ferroelectric thermal stability of Ba0.955La0.03TiO3 relaxor ferroelectric. Journal of Materials Science: Materials in Electronics, 2022, 33, 7621-7635.	1.1	2
92	Optical Properties of Nanocrystalline (Ba,Ca)TiO₃Thin Films Grown on Pt-Coated Silicon Substrates. Ferroelectrics, 2010, 405, 268-274.	0.3	1
93	Influence of LaNiO3 and LaNi0.5Mn0.5O3 Buffer Layers on the Structural and Electrical Properties of BiNi0.5Mn0.5O3 Thin Films. Journal of Electronic Materials, 2015, 44, 3783-3787.	1.0	1
94	High temperature dielectric anomaly and impedance analysis of (Pb1â˜3x/2La x)(Zr0.95Ti0.05)O3 ceramics. Journal of Materials Science: Materials in Electronics, 2017, 28, 14864-14873.	1.1	1
95	Switching Characteristics and High-Temperature Dielectric Relaxation Behaviours of Pb(Zn1/3Nb2/3)0.91Ti0.09O3 Single Crystal. Materials, 2017, 10, 349.	1.3	1
96	Non-Volatile Regulation of Magnetism via Electric Fields in Polycrystal FeSi/(011) PMN-0.32PT Heterostructures. Magnetochemistry, 2020, 6, 57.	1.0	1
97	Comparison of internal friction and torsion strain spectra for the cubicâ€“tetragonal transformation of PMNâ€32PT crystal. Physica Status Solidi (B): Basic Research, 2011, 248, 2103-2106.	0.7	0
98	Interfacial resistive switching of Ruddlesdenâ€“Popper phase strontium titanate thin film by charge-modulated Schottky barrier. FlatChem, 2021, 27, 100239.	2.8	0