

Desheng Fu

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Discovery of Lead-Free Perovskites for High-Performance Solar Cells via Machine Learning: Ultrabroadband Absorption, Low Radiative Combination, and Enhanced Thermal Conductivities. <i>Advanced Science</i> , 2022, 9, e2103648.	11.2	35
2	The Critical Role of Stereochemically Active Lone Pair in Introducing High Temperature Ferroelectricity. <i>Inorganic Chemistry</i> , 2021, 60, 4068-4075.	4.0	10
3	A capacitive displacement system for studying the piezoelectric strain and its temperature variation. <i>Journal of Applied Physics</i> , 2021, 129, 144101.	2.5	0
4	Covalency driven modulation of paramagnetism and development of lone pair ferroelectricity in multiferroic $\text{Pb}_3\text{TeMn}_3\text{P}_2\text{O}_{14}$. <i>Physical Review B</i> , 2020, 101, .	3.2	6
5	Sub-picosecond photo-induced displacive phase transition in two-dimensional MoTe_2 . <i>Npj 2D Materials and Applications</i> , 2020, 4, .	7.9	43
6	First-principles study of the ferroelectric phase of AgNbO_3 . , 2019, , 137-159.		0
7	Fluorinated hexagonal 4H SrMnO_3 : a locally disordered manganite. <i>Journal of Materials Chemistry C</i> , 2019, 7, 3560-3568.	5.5	13
8	Polarization fluctuations in the perovskite-structured ferroelectric $\text{AgNb}_3\text{O}_{10}$. <i>Physical Review B</i> , 2018, 97, .	3.2	20
9	The electric field induced ferroelectric phase transition of AgNbO_3 . <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	31
10	Local structure analysis of NaNbO_3 and AgNbO_3 modified by Li substitution. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 10TC04.	1.5	4
11	Local Structure Analysis of Nb-related Perovskite Materials. <i>Transactions of the Materials Research Society of Japan</i> , 2014, 39, 455-458.	0.2	3
12	Local Structure Analysis of Li-substituted $(\text{Bi}_{0.5}\text{Na}_{0.5})\text{TiO}_3$ and NaNbO_3 . <i>Transactions of the Materials Research Society of Japan</i> , 2014, 39, 247-250.	0.2	0
13	Origin of temperature independent piezoelectric coefficient in $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ - BaTiO_3 - PbTiO_3 ceramics. <i>Journal of Applied Physics</i> , 2013, 114, 074105.	2.5	3
14	First-Principles Study of Point Defect Formation in AgNbO_3 . <i>Japanese Journal of Applied Physics</i> , 2013, 52, 09KF08.	1.5	22
15	Phase diagram and piezoelectric response of $(\text{Ba}_{1-x}\text{Ca}_x)(\text{Zr}_{0.1}\text{Ti}_{0.9})\text{O}_3$ solid solution. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 425901.	1.8	18
16	A First-Principles Study of the Ferroelectric Phase of AgNbO_3 . <i>Japanese Journal of Applied Physics</i> , 2012, 51, 09LE02.	1.5	8
17	Large and temperature-independent piezoelectric response in $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ - BaTiO_3 - PbTiO_3 . <i>Applied Physics Letters</i> , 2012, 101, 192901.	3.3	4
18	Origin of the dielectric response in $\text{Ba}_{0.767}\text{Ca}_{0.233}\text{TiO}_3$. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	14

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19	A First-Principles Study of the Ferroelectric Phase of AgNbO_3 . Japanese Journal of Applied Physics, 2012, 51, 09LE02.	1.5	9
20	Structure of Ferroelectric Silver Niobate AgNbO_3 . Chemistry of Materials, 2011, 23, 1643-1645.	6.7	152
21	High-Pressure Synthesis and Correlation between Structure, Magnetic, and Dielectric Properties in LiNbO_3 -Type MnMO_3 ($M = \text{Ti}, \text{Sn}$). Inorganic Chemistry, 2011, 50, 6392-6398.	4.0	77
22	Ferroelectricity in Silver Perovskite Oxides. , 2011, , .		3
23	Microstructure and electrical properties of BaTiO_3 thin films by modified CSD. Journal of the Ceramic Society of Japan, 2011, 119, 498-501.	1.1	4
24	Raman scattering study of the soft mode in $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$. Journal of Raman Spectroscopy, 2011, 42, 706-714.	2.5	58
25	Ferroelectricity and electromechanical coupling in $(1-x)\text{AgNbO}_3-x\text{NaNbO}_3$ solid solutions. Applied Physics Letters, 2011, 99, .	3.3	40
26	Ferroelectricity of Li-doped silver niobate $(\text{Ag}, \text{Li})\text{NbO}_3$. Journal of Physics Condensed Matter, 2011, 23, 075901.	1.8	25
27	Effect of Stress Engineering on the Electrical Properties of BaTiO_3 Thin Film. Japanese Journal of Applied Physics, 2011, 50, 09NA03.	1.5	12
28	Effect of Stress Engineering on the Electrical Properties of BaTiO_3 Thin Film. Japanese Journal of Applied Physics, 2011, 50, 09NA03.	1.5	3
29	Ferroelectricity in NaNbO_3 : Revisited. Ferroelectrics, 2010, 401, 51-55.	0.6	18
30	Preparation of hydroxyapatite/ferrite composite particles by ultrasonic spray pyrolysis. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 173, 195-198.	3.5	42
31	Low-temperature crystallization of CSD-derived PZT thin film with laser annealing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 173, 89-93.	3.5	12
32	Comparison of Thermal Stability of Epitaxially Grown $(\text{La}_{0.5}\text{Sr}_{0.5})\text{CoO}_3$ and $(\text{La}_{0.6}\text{Sr}_{0.4})\text{MnO}_3$ Thin Films Deposited on Si Substrate. Key Engineering Materials, 2010, 445, 160-163.	0.4	0
33	Preparation and Characterization of Alkoxide-Derived Lead-Free Piezoelectric Barium Zirconate Titanate Thin Films with Different Compositions. Japanese Journal of Applied Physics, 2010, 49, 09MA11.	1.5	11
34	Invariant lattice strain and polarization in BaTiO_3 - CaTiO_3 ferroelectric alloys. Journal of Physics Condensed Matter, 2010, 22, 052204.	1.8	41
35	Phonon Dynamics in BiFeO_3 Studied by Raman Scattering. Ferroelectrics, 2010, 403, 187-190.	0.6	8
36	Dielectric, ferroelectric, and piezoelectric behaviors of AgNbO_3 - KNbO_3 solid solution. Journal of Applied Physics, 2009, 106, .	2.5	55

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37	Preparation of MgIn ₂ O ₄ Epitaxial Oxide Electrode with Spinel Structure and Heteroepitaxial Growth of BaTiO ₃ –NiFe ₂ O ₄ Multiferroic Composite Thin Film. Japanese Journal of Applied Physics, 2009, 48, 09KB06.	1.5	7
38	Lattice distortion under an electric field in BaTiO ₃ piezoelectric single crystal. Journal of Physics Condensed Matter, 2009, 21, 215903.	1.8	43
39	Artificially controlled magnetic domain structures in ferromagnetic dots–ferroelectric heterostructures. Journal of Applied Physics, 2009, 105, 07D901.	2.5	25
40	Relaxor $\text{Pb}(\text{Mg}_{1-x}\text{Pb}_x)\text{TiO}_3$: A Ferroelectric with Mu. Physical Review Letters, 2009, 103, 207601.	7.8	256
41	Doping effect of Dy on leakage current and oxygen sensing property of SrTiO ₃ thin film prepared by PLD. Journal of the Ceramic Society of Japan, 2009, 117, 1004-1008.	1.1	3
42	Successive crystallization of ferroelectric-based BaTi ₂ O ₅ bulk glass studied by Raman scattering. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 148, 48-52.	3.5	13
43	Origin of Giant Dielectric Response in Nonferroelectric CaCu ₃ Ti ₄ O ₁₂ : Inhomogeneous Conduction Nature Probed by Atomic Force Microscopy. Chemistry of Materials, 2008, 20, 1694-1698.	6.7	77
44	Crystal growth and piezoelectricity of BaTiO ₃ –CaTiO ₃ solid solution. Applied Physics Letters, 2008, 93, .	3.3	59
45	Anomalous Phase Diagram of Ferroelectric $\text{Ca}_{1-x}\text{Ba}_x\text{TiO}_3$ Crystals with Giant Electromechanical Response. Physical Review Letters, 2008, 100, 227601.	11.0	1314
46	Reply to Comment on “Origin of Giant Dielectric Response in Nonferroelectric CaCu ₃ Ti ₄ O ₁₂ : Inhomogeneous Conduction Nature Probed by Atomic Force Microscopy”. Chemistry of Materials, 2008, 20, 6286-6287.	6.7	4
47	Positive and Negative Magnetodielectric Effects in A-Site Ordered (BiMn ₃ Mn ₄ O ₁₂) Perovskite. Journal of the American Chemical Society, 2008, 130, 14948-14949.	13.7	60
48	Temperature Evolution of the Optical Phonons in Pb(Ni _{1/3} Nb _{2/3})O ₃ Single Crystals Studied by Raman Scattering. Ferroelectrics, 2008, 367, 67-72.	0.6	4
49	Structure and dielectric properties of high-pressure perovskite-type oxyfluorides xKTiO ₂ F(1-x)BaTiO ₃ . Journal of Applied Physics, 2008, 104, 044101.	2.5	14
50	Piezoelectric properties of lithium modified silver niobate perovskite single crystals. Applied Physics Letters, 2008, 92, .	3.3	44
51	In Situ Raman Scattering Study on Successive Crystallization of Bulk BaTi ₂ O ₅ Glass. Ferroelectrics, 2007, 346, 156-161.	0.6	4
52	Electrical voltage manipulation of ferromagnetic microdomain structures in a ferromagnetic/ferroelectric hybrid structure. Journal of Applied Physics, 2007, 101, 09F512.	2.5	22
53	Conductive Boundary Layer in CaCu ₃ Ti ₄ O ₁₂ with Giant-Dielectric-Response. Ferroelectrics, 2007, 347, 140-144.	0.6	7
54	AgNbO ₃ : A lead-free material with large polarization and electromechanical response. Applied Physics Letters, 2007, 90, 252907.	3.3	229

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55	Electrical Properties of CSD-Derived Pb(Zr,Ti)O ₃ Thin Films with Different Orientations and Compositions. <i>Ferroelectrics</i> , 2006, 335, 103-111.	0.6	1
56	Direct Observation of Ferroelectricity in Quasi-Zero-Dimensional Barium Titanate Nanoparticles. <i>Small</i> , 2006, 2, 1427-1431.	10.0	26
57	Characterization of (Y,Yb)MnO ₃ /Y ₂ O ₃ /Si Prepared from Alkoxide Solutions. <i>Ferroelectrics</i> , 2005, 329, 107-111.	0.6	1
58	Crystal Phase and Orientation Control in Integrated Ferroelectric CaBi ₄ Ti ₄ O ₁₅ Using a Tailored Liquid of Alkoxides. <i>International Journal of Applied Ceramic Technology</i> , 2005, 2, 64-72.	2.1	3
59	Crystal Growth and Magnetic Properties of BaCo ₂ V ₂ O ₈ . <i>ChemInform</i> , 2005, 36, no.	0.0	0
60	Effect of built-in bias fields on the nanoscale switching in ferroelectric thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 80, 1067-1070.	2.3	14
61	Ferroelectric characteristics of silicate-bound Bi ₄ Ti ₃ O ₁₂ thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 80, 271-273.	2.3	0
62	Effect of amorphous TiO ₂ buffer layer on the phase formation of CaBi ₄ Ti ₄ O ₁₅ ferroelectric thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 81, 861-864.	2.3	5
63	Ferro- and Piezoelectric Properties of CaBi ₄ Ti ₄ O ₁₅ Films with Polar Axis Orientation. <i>Integrated Ferroelectrics</i> , 2005, 69, 143-149.	0.7	0
64	Dielectric anomalies in Pb _{0.7} (1-x)Ca _{0.7x} La _{0.2} TiO ₃ . <i>Applied Physics Letters</i> , 2005, 87, 072904.	3.3	0
65	Crystal Growth and Magnetic Properties of BaCo ₂ V ₂ O ₈ . <i>Chemistry of Materials</i> , 2005, 17, 2924-2926.	6.7	76
66	High piezoelectric response in polar-axis-oriented CaBi ₄ Ti ₄ O ₁₅ ferroelectric thin films. <i>Applied Physics Letters</i> , 2004, 85, 3519-3521.	3.3	18
67	Frequency Dependence of Polarization Hysteresis Loop in CaBi ₄ Ti ₄ O ₁₄ Ferroelectric Thin Films. <i>Integrated Ferroelectrics</i> , 2004, 61, 19-23.	0.7	5
68	Ferro- and piezoelectric properties of polar-axis-oriented CaBi ₄ Ti ₄ O ₁₅ films. <i>Applied Physics Letters</i> , 2004, 84, 3771-3773.	3.3	46
69	Effects of β -diketone Addition on Crystallinity of Photo-Assisted Alkoxy-Derived Zirconia Thin Films. <i>Key Engineering Materials</i> , 2004, 269, 125-128.	0.4	6
70	Construction of MFIS Structure Using Alkoxy-Derived (Y,Yb)MnO ₃ Thin Films. <i>Key Engineering Materials</i> , 2004, 269, 49-52.	0.4	3
71	Composition Dependence of Lead-Free Ferroelectric Ba(Ti,Zr)O ₃ Thin Films Fabricated by Chemical Solution Deposition Process. <i>Key Engineering Materials</i> , 2004, 269, 57-60.	0.4	6
72	Novel (Y,Yb)MnO ₃ Thin Films for FeRAM Application. <i>Integrated Ferroelectrics</i> , 2004, 65, 117-123.	0.7	8

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73	Fabrication and Characterization of Ba(Ti,Zr)O ₃ Thin Films Through the Chemical Solution Deposition Process. <i>Integrated Ferroelectrics</i> , 2004, 64, 227-236.	0.7	9
74	Grain Size Effect on Dielectric and Piezoelectric Properties of Alkoxy-Derived BaTiO ₃ -Based Thin Films. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 6525-6529.	1.5	42
75	Current Status of Bi-Based Precursors for Integrated Ferroelectrics. <i>Integrated Ferroelectrics</i> , 2004, 62, 133-140.	0.7	5
76	Residual stress in lead titanate thin film on different substrates. <i>Journal of the European Ceramic Society</i> , 2004, 24, 1669-1672.	5.7	24
77	Effect of rapid thermal annealing on residual stress in lead titanate thin film by chemical solution deposition. <i>Ceramics International</i> , 2004, 30, 1487-1491.	4.8	16
78	Novel Ferroelectric Candidates in a Series of ABi ₄ Ti ₄ O ₁₅ (A: Alkaline Earth Metals) Thin Films. <i>Integrated Ferroelectrics</i> , 2003, 52, 3-10.	0.7	2
79	Ferroelectric Property of Alkoxy-Derived YMnO ₃ Films Crystallized in Argon. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 5692-5695.	1.5	17
80	Piezoelectric Responses of Highly-Oriented Tetragonal Pb(Zr 0.4 Ti 0.6)O ₃ Thin Films. <i>Ferroelectrics</i> , 2003, 292, 119-125.	0.6	3
81	Observation of Domain Structures in Bi-Based CaBi ₄ Ti ₄ O ₁₅ Thin Films by Scanning Force Microscopy. <i>Ferroelectrics</i> , 2003, 291, 49-54.	0.6	4
82	Dynamics of nanoscale polarization backswitching in tetragonal lead zirconate titanate thin film. <i>Applied Physics Letters</i> , 2003, 82, 2130-2132.	3.3	38
83	Compositional Dependence of Ferroelectric Properties for (Y,Yb)MnO ₃ Thin Films Prepared by Chemical Solution Deposition. <i>Integrated Ferroelectrics</i> , 2003, 52, 55-61.	0.7	6
84	Preparation of (Y,Yb)MnO ₃ /Y ₂ O ₃ /Si (MFIS) Structure by Chemical Solution Deposition Method. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 6007-6010.	1.5	19
85	Piezoelectric Properties of CaBi ₄ Ti ₄ O ₁₅ Ferroelectric Thin Films Investigated by Atomic Force Microscopy. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 5994-5997.	1.5	16
86	Ferroelectric Properties of (Y,Yb)MnO ₃ Thin Films Prepared Using Alkoxide Solutions. <i>Key Engineering Materials</i> , 2003, 248, 77-82.	0.4	9
87	Platinum-assisted phase transition in bismuth-based layer-structured ferroelectric CaBi ₄ Ti ₄ O ₁₅ thin films. <i>Applied Physics Letters</i> , 2002, 81, 3227-3229.	3.3	31
88	High-piezoelectric behavior of c-axis-oriented lead zirconate titanate thin films with composition near the morphotropic phase boundary. <i>Applied Physics Letters</i> , 2002, 80, 3572-3574.	3.3	51
89	Effects of Substrates on Alkoxy-Derived (Y,Yb)MnO ₃ Thin Films. <i>Integrated Ferroelectrics</i> , 2002, 47, 91-100.	0.7	6
90	Investigation of Domain Switching and Retention in Oriented PbZr _{0.3} Ti _{0.7} O ₃ Thin Film by Scanning Force Microscopy. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 6724-6729.	1.5	15

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91	Chemical Approach Using Tailored Liquid Sources for Traditional and Novel Ferroelectric Thin Films. Japanese Journal of Applied Physics, 2002, 41, 6829-6835.	1.5	16
92	Local Piezoelectric Response in Bismuth-Based Ferroelectric Thin Films Investigated by Scanning Force Microscopy. Japanese Journal of Applied Physics, 2002, 41, L1103-L1105.	1.5	15
93	Long-Time Piezoelectric Relaxation in Lead Zirconate Titanate Thin Film. Japanese Journal of Applied Physics, 2002, 41, L580-L582.	1.5	10
94	Structure and Ferroelectric Properties of Alkoxy-Derived Ca ₂ Bi ₄ Ti ₅ O ₁₈ Thin Films on Pt(111)/TiO _x /SiO ₂ /Si(100). Japanese Journal of Applied Physics, 2002, 41, 2110-2114.	1.5	4
95	Special Issue Ceramics Integration. Integration of Ferroelectric Ca ₂ Bi ₄ Ti ₅ O ₁₈ Thin Films on Pt-Passivated Si via Spin-Coating Technique.. Journal of the Ceramic Society of Japan, 2002, 110, 403-407.	1.3	0
96	Platinum-Accelerated Phase Transition in Bismuth-Based Layer-Structured Ferroelectric Thin Films. Materials Research Society Symposia Proceedings, 2002, 748, 1.	0.1	1
97	Temperature dependence of lattice modes in PbTiO ₃ thin film. Ferroelectrics, 2001, 259, 79-84.	0.6	1
98	Observation of Piezoelectric Relaxation in Ferroelectric Thin Films by Continuous Charge Integration. Japanese Journal of Applied Physics, 2001, 40, 5683-5686.	1.5	29
99	Size-induced phase transition in PbTiO ₃ nanocrystals: Raman scattering study. Physical Review B, 2000, 62, 3125-3129.	3.2	48
100	Raman Studies of the Effects of Nb Dopant on the Ferroelectric Properties in Lead Titanate Thin Film. Japanese Journal of Applied Physics, 2000, 39, 5687-5690.	1.5	3
101	Phonon mode behaviours of PbTiO ₃ thin films deposited on Pt/Si substrates. Journal of Physics Condensed Matter, 2000, 12, 399-414.	1.8	34
102	Thickness dependence of stress in lead titanate thin films deposited on Pt-coated Si. Applied Physics Letters, 2000, 77, 1532-1534.	3.3	52
103	Effect of PbTiO ₃ Seeding Layer on the Growth of Sol-Gel-Derived Pb(Zr _{0.53} Ti _{0.47})O ₃ Thin Film. Japanese Journal of Applied Physics, 1998, 37, 5128-5131.	1.5	41
104	Effect of Substrate on Growth Mechanism of Flower Structured InN Fabricated by APHCVD. Key Engineering Materials, 0, 445, 209-212.	0.4	2
105	Tunable Barium Strontium Titanate Thin Films by CSD. Key Engineering Materials, 0, 445, 156-159.	0.4	1